

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

BROADBAND iTV, INC.,	§	
	§	Case No. 6:20-cv-921-ADA
	§	
Plaintiff,	§	
	§	
v.	§	
	§	JURY TRIAL DEMANDED
AMAZON.COM, INC., AMAZON.COM	§	
SERVICES LLC and AMAZON WEB	§	
SERVICES, INC.,	§	
	§	
Defendants.	§	
	§	

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**AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Broadband iTV, Inc. (“BBiTV”), by and through the undersigned counsel, hereby files this complaint (“Complaint”) against Defendants Amazon.com, Inc. (“Amazon.com”), Amazon.com Services LLC (“Amazon Services”) and Amazon Web Services, Inc. (“AWS”) (collectively “Amazon”) and alleges as follows upon actual knowledge with respect to itself and its own acts and upon information and belief as to all other matters.

**NATURE OF THE ACTION**

1. This is an action for patent infringement. BBiTV alleges that Amazon infringes U.S. Patent Nos. 10,028,026 (the “’026 Patent”), 9,648,388 (the “’388 Patent”), 10,536,750 (the “’750 Patent”), 10,536,751 (the “’751 Patent”), and 9,973,825 (the “’825 Patent”), copies of which are attached hereto as **Exhibits A-E** (collectively “the Asserted Patents”).

2. BBiTV alleges that Amazon directly and indirectly infringes the Asserted Patents by making, using, offering for sale, selling and importing, among other things, internet-connected digital devices (“ICDDs”) sold under the “Fire” brand and mobile device apps that

provide certain novel video-on-demand (“VOD”) functionalities. Amazon also induces and contributes to the infringement of others, including its users, customers, agents, or other third parties. BBiTV seeks damages and other relief for Amazon’s direct and indirect infringement of the Asserted Patents.

### **THE PARTIES**

3. BBiTV is a Delaware corporation with offices at 900 South Capital of Texas Highway, Building IV, Suite 480, Austin, Texas 78746 and at 201 Merchant Street, Suite 1830, Honolulu, Hawaii 96813.

4. BBiTV holds all substantial rights, title and interest in and to the Asserted Patents.

5. Upon information and belief, defendant Amazon.com, Inc. is a corporation organized under the laws of Delaware, with a principal place of business at 410 N. Terry Avenue North, Washington 98109. Amazon.com, Inc. can be served through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, located at 211 E. 7th Street, Suite 620, Austin, Texas 78701.

6. Upon information and belief, Defendant Amazon.com Services LLC is a Delaware limited liability company with a principal place of business at 410 N. Terry Avenue North, Washington 98109. Amazon.com Services LLC can be served in Texas through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, located at 211 E. 7th Street, Suite 620, Austin, Texas 78701.

7. Upon information and belief, Defendant Amazon.com Services LLC is a wholly owned subsidiary of Defendant Amazon.com, Inc.

8. Defendant Amazon Web Services, Inc. is a corporation organized under the laws of Delaware, with a principal place of business at 410 N. Terry Avenue North, Washington

98109. Amazon Web Services can be served through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, located at 211 E. 7th Street, Suite 620, Austin, Texas 78701.

9. Upon information and belief, Defendant Amazon Web Services, Inc. is a wholly owned subsidiary of Defendant Amazon.com, Inc.

10. Amazon.com, Inc., Amazon Services.com LLC, and Amazon Web Services, Inc. will be referred to collectively herein as “Amazon.”

### **JURISDICTION AND VENUE**

11. This action for patent infringement arises under the Patent Laws of the United States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28 U.S.C. §§ 1331 and 1338.

12. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§ 1391(b), (c), and § 1400(b) because upon information and belief Amazon.com has a regular and established place of business in this District at least at 11501 Altera Parkway, Austin, TX 78758, and it and the other Amazon defendants employ more than 5,000 people in this District. Amazon also maintains fulfillment centers in this District and it sells and makes available products and provides services to customers in this District. In addition, Amazon.com has committed acts within this District giving rise to this action and continues to conduct business in this District, including one or more acts of selling, using, importing, and/or offering for sale infringing products or providing support service to Amazon.com, Inc.’s customers in this District.

13. Venue in the Western District of Texas also is proper pursuant to 28 U.S.C. §§ 1391(b), (c), and § 1400(b) because upon information and belief Amazon Services has a

regular and established place of business in this District at least at 11501 Altera Parkway, Austin, TX 78758, and it employs some of the more than 5,000 people employed by Amazon.com and its subsidiaries in this District. Amazon Services has committed acts within this District giving rise to this action and continues to conduct business in this District, including one or more acts of selling, using, importing, and/or offering for sale infringing products or providing support service to Amazon's customers in this District.

14. Venue in the Western District of Texas also is proper pursuant to 28 U.S.C. §§ 1391(b), (c), and § 1400(b) because upon information and belief AWS has a regular and established place of business in this District at least at 11501 Altera Parkway, Austin, TX 78758 and employs some of the more than 5,000 people employed by Amazon.com and its subsidiaries in this District. AWS has committed acts within this District giving rise to this action and continues to conduct business in this District, including one or more acts of selling, using, importing, and/or offering for sale infringing products or providing support service to Amazon's customers in this District.

15. Venue in the Western District of Texas also is proper pursuant to 28 U.S.C. §§ 1391(b), (c), and § 1400(b) because upon information and belief AWS operates an "edge location" in Austin through which end users access services hosted by AWS and which is specifically used by AWS CloudFront to distribute content to end users to reduce latency.

16. Amazon is subject to this Court's specific and general personal jurisdiction pursuant to due process or the Texas Long Arm Statute, due at least to Amazon's substantial business in this forum, including: (i) business related to infringing acts as alleged herein; or (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, or deriving substantial revenue from goods and services provided to individuals in Texas and in this

District. Within this state, Amazon has used the inventions of the Asserted Patents thereby committing, and continuing to commit, acts of patent infringement alleged herein. In addition, Amazon has derived revenues from its infringing acts occurring within the Western District of Texas. Further, Amazon is subject to the Court's general jurisdiction, including from regularly doing or soliciting business, engaging in other persistent courses of conduct, and deriving substantial revenue from goods and services provided to persons or entities in Texas and the Western District of Texas. Further, Amazon is subject to the Court's personal jurisdiction at least due to its sale of products or services within Texas and the Western District of Texas. Amazon has committed such purposeful acts or transactions in Texas such that they reasonably should know and expect that they could be hauled into this Court because of such activity.

**COUNT I – INFRINGEMENT OF U.S. PATENT NO. 10,028,026**

17. The allegations of paragraphs 1-16 of this Complaint are incorporated by reference as though fully set forth herein.

18. The '026 Patent, titled "System for addressing on-demand TV program content on TV services platform of a digital TV services provider," issued on July 17, 2018. A copy of the '026 Patent is attached as **Exhibit A**.

19. Pursuant to 35 U.S.C. § 282, the '026 Patent is presumed valid.

20. Upon information and belief, Amazon infringes at least claim 1 of the '026 Patent literally and/or under the doctrine of equivalents because it makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that provide Amazon's subscribers with video on-demand services on their ICDDs and mobile device apps (collectively the "Accused '026 Patent Products"). Specifically, Amazon, by and through its various operator subsidiaries, provides ICDDs such as the Fire TV Stick streaming media player,

the Fire TV 4K Stick streaming media player, Fire TV Cube, Fire TV Recast, and the Fire TV Blaster for receiving, via the Internet, video content to be viewed by VOD system subscribers. Likewise, Amazon provides apps, such as the Amazon Prime Video app available for iOS devices on Apple's App Store, Android devices on Google Play, and other ICDDs. Amazon's apps loaded onto subscribers' ICDDs—including smartphones, tablets, smart TVs and set-top boxes—for receiving, via the Internet, video content to be viewed by VOD system subscribers.

21. Exemplary claim 1 of the '026 Patent claims:

An Internet-connected digital device for receiving, via the Internet, video content to be viewed by a subscriber of a video-on-demand system using a hierarchically arranged electronic program guide,

the Internet-connected digital device being configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content;

wherein the templated video-on-demand display has been generated in a plurality of layers, comprising:

- (a) a first layer comprising a background screen to provide at least one of a basic color, logo, or graphical theme to display;
- (b) a second layer comprising a particular display template from the plurality of different display templates layered on the background screen, wherein the particular display template comprises one or more reserved areas that are reserved for displaying content provided by a different layer of the plurality of layers; and
- (c) a third layer comprising reserved area content generated using the received video content, the associated metadata, and an associated plurality of images to be displayed in the one or more reserved areas in

the particular display template as at least one of text, an image, a navigation link, and a button,

wherein the navigating through titles in a drill-down manner comprises navigating from a first level of the hierarchical structure of a video-on-demand content menu to a second level of the hierarchical structure to locate the particular one of the titles, and

wherein a first template of the plurality of different display templates is used as the particular display template for the templated display for displaying the first level of the hierarchical structure and wherein a second template of the plurality of different display templates is used as the particular display template for the templated display for displaying the second level of the hierarchical structure,

wherein the received video content was uploaded to a Web-based content management system by a content provider device associated with the video content provider via the Internet in a digital video format, along with associated metadata including title information and category information, and along with the associated plurality of images designated by the video content provider, the associated metadata specifying a respective hierarchical location of a respective title of the video content within the electronic program guide to be displayed on the Internet-connected digital device using the respective hierarchically-arranged category information associated with the respective title,

wherein at least one of the uploaded associated plurality of images designated by the video content provider is displayed with the associated respective title in the templated video-on-demand display.

22. The Accused '026 Patent Products include “[a]n Internet-connected digital device for receiving, via the Internet, video content to be viewed by a subscriber of a video-on-demand system using a hierarchically arranged electronic program guide.” Examples of Amazon Internet connected digital devices (ICDDs) are pictured on the left below, and an exemplary Amazon hierarchically arranged electronic program guide (EPG) is pictured on the right.



23. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” The Accused ‘026 Patent Products are configured to obtain and present an EPG that satisfies this limitation as illustrated by the exemplary Prime Video EPG that is provided to subscribers.

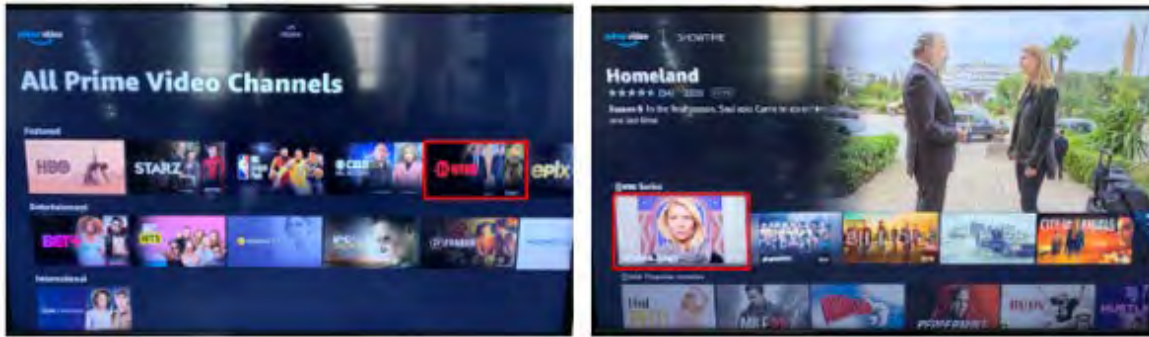




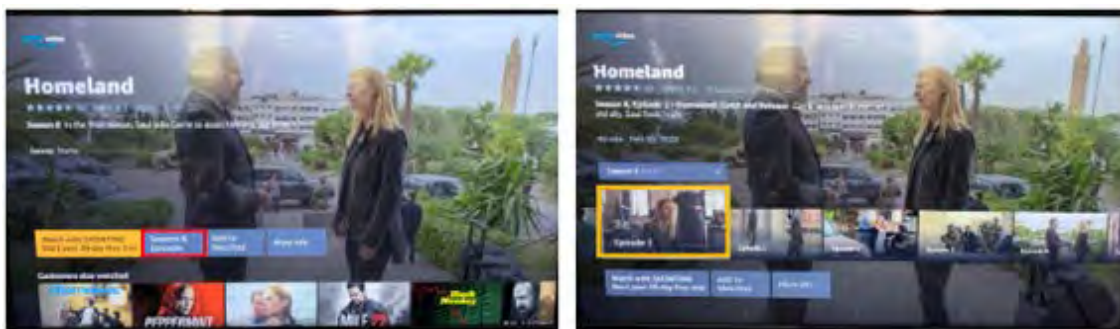
24. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access,” as shown below.



25. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” As shown in the example below, a subscriber may drill down through titles by category information, for example, starting from the Prime Video Channels Menu and selecting a channel (e.g., Showtime) and a TV show (e.g., “Homeland”) under the “Series” heading.

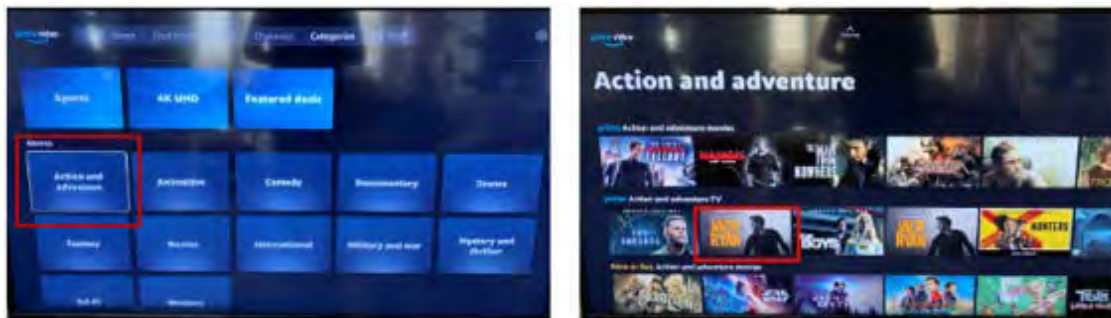


26. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” At this end of this exemplary drill down through titles by category information, the subscriber may choose a Season and Episode and select Episode 2 of “Homeland” for viewing.



27. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to

which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” In the example below, a subscriber can start drill down navigation in the “Categories” menu where a user selects a category (e.g., Action and adventure) and drills into a subcategory (e.g., “Jack Ryan”).



28. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” In the example below, a subscriber may further drill into Season 2 and select Episode 6 of “Jack Ryan.”



29. In the Accused '026 Patent Products, “[t]he Internet-connected digital device [is] configured to obtain and present to the subscriber an electronic program guide as a templated video-on-demand display, which uses at least one of a plurality of different display templates to which the Internet-connected digital device has access, to enable a subscriber using the Internet-connected digital device to navigate in a drill-down manner through titles by category information in order to locate a particular one of the titles whose associated video content is desired for viewing on the Internet-connected digital device using the same category information as was designated by a video content provider in metadata associated with the video content.” In the example below, a subscriber may navigate by channel, Series, TV show, season, and episode based on metadata designated by the content provider.





## Publishing requirements

All titles must include the following information:

- **Title Name** — This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.
- **Category** — This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct. For more information, see [Publishing FAQs - How do I select the appropriate Category for my title?](#)
- **Title Metadata Language** — This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected. For more information, see [Location Requirements](#).
- **Synopsis** — This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.
- **Genre** — Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability. For a complete list, see [Genre Definitions](#).
- **Country of Origin** — The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).
- **Rating** — Regulators or organizations in each marketplace create ratings criteria for movies and TV shows, however if your title is not officially rated, you must select **Suggested Rating - Title not officially rated**.
- **Cast and Crew Information** — A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.
- **Mezzanine File** — Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed. For more information, see [Mezzanine Requirements](#).
- **Captions File** — Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. For more information, see [Captions Requirements](#).
- **Key Art** — Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name. For more information, see [Art requirements](#).
- **Availability Options** — You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title). For more information, see [Royalty information](#).

<https://videocentral.amazon.com/home/help?topicId=GG5QNX4NA2MEWRRA>

## Getting Started – 3 “Must Have” Assets and Top Tips

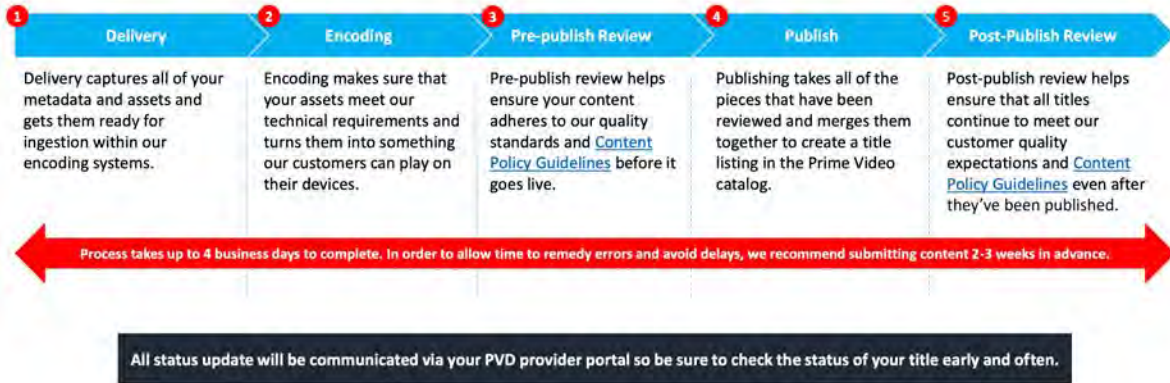
There are 3 major assets you need to have before getting started:

	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>• Watermark/Logo/URL</li> <li>• Mismatched video and audio durations</li> <li>• Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>• Out of sync/incoherent</li> <li>• Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>• Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>• Padded images/Stretched/narrowed images</li> <li>• Title name not displayed</li> <li>• Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>• Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>• Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>• Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>• For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>• Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).

## Publishing Process Overview

When you have uploaded all the necessary assets and clicked the “publish” button, your title has to go through a process we call “Publishing”. Here are the steps that happen after you click publish:



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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
<b>Title Name</b>	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
<b>Category</b>	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
<b>Title Metadata Language</b>	This is the language of the <b>Title Name</b> , synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
<b>Synopsis</b>	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
<b>Genre</b>	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
<b>Country of Origin</b>	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
<b>Rating</b>	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
<b>Cast and Crew Information</b>	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
<b>Mezzanine File</b>	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
<b>Captions File</b>	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
<b>Key Art</b>	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
<b>Availability Options</b>	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)



### Creating a Title Entry – Part 2

When you click “Add Title,” the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing

The screenshot shows the 'Add Title' form with three callouts:

- 1 Title**: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2 Category**: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3 Title Metadata Language**: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to).

The form fields are: Title (text input), Category (dropdown menu showing 'Short films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

#### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

30. In the Accused '026 Patent Products, “the templated video-on-demand display has been generated in a plurality of layers”, where: “(a) a first layer [has] a background screen to provide at least one of a basic color, logo, or graphical theme to display.” For example, the templated display used in the Prime Video EPG includes a customizable first layer comprising a logo and a background (the photo).



31. In the Accused '026 Patent Products, “the templated video-on-demand display has been generated in a plurality of layers”, where: “(a) a first layer comprising a background

screen to provide at least one of a basic color, logo, or graphical theme to display; (b) a second layer comprising a particular display template from the plurality of different display templates layered on the background screen, wherein the particular display template comprises one or more reserved areas that are reserved for displaying content provided by a different layer of the plurality of layers.” For example, the templatized display used in the Prime Video EPG includes a second layer comprising a display template. For example, the “Homeland” and “Shameless” menus use the same template having the same reserved areas which in this case show different content.



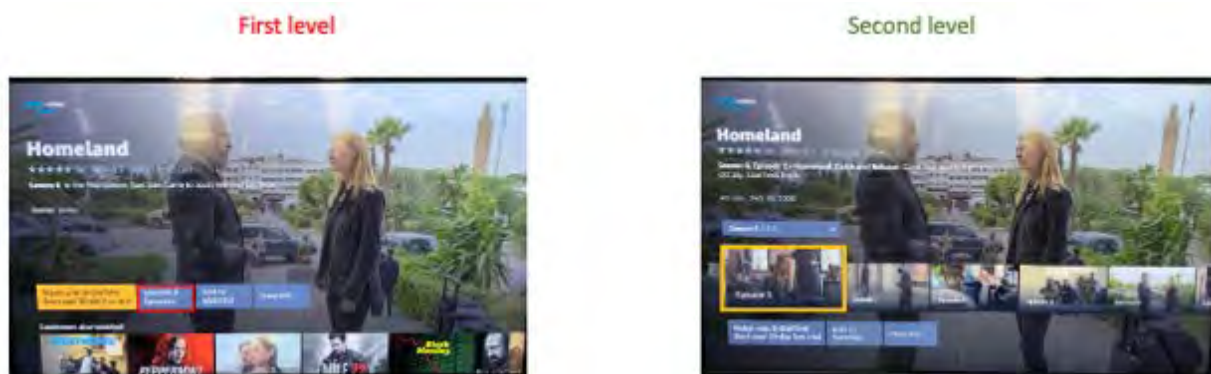
32. In the Accused '026 Patent Products, “the templatized video-on-demand display has been generated in a plurality of layers”, where: “(a) a first layer comprising a background screen to provide at least one of a basic color, logo, or graphical theme to display; (b) a second layer comprising a particular display template from the plurality of different display templates layered on the background screen, wherein the particular display template comprises one or more reserved areas that are reserved for displaying content provided by a different layer of the plurality of layers; and (c) a third layer comprising reserved area content generated using the received video content, the associated metadata, and an associated plurality of images to be displayed in the one or more reserved areas in the particular display template as at least one of text, an image, a navigation link, and a button.” For example, the templatized display used in the



Prime Video EPG includes a third layer which has reserved area content including text, images, navigation links, and buttons filled in.

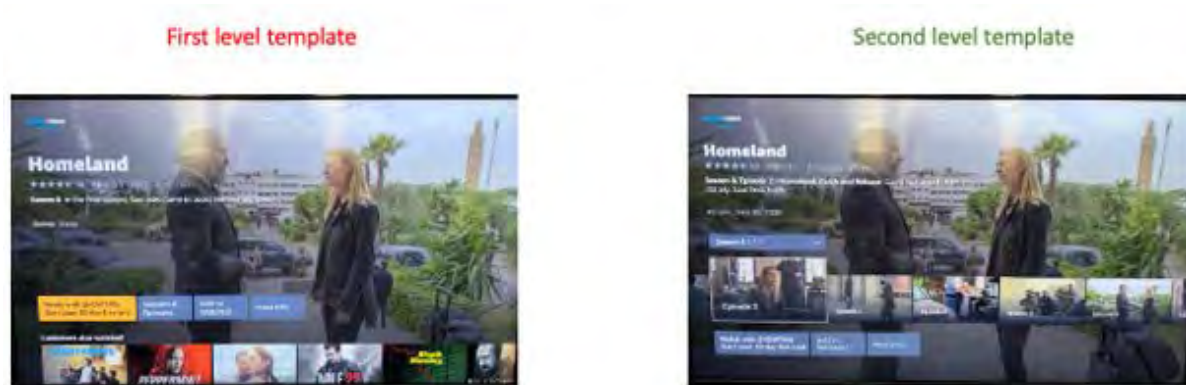


33. In the Accused '026 Patent Products, “navigating through titles in a drill-down manner [can be done by] navigating from a first level of the hierarchical structure of a video-on-demand content menu to a second level of the hierarchical structure to locate the particular one of the titles.” In the example below, the subscriber may navigate from a first level (e.g., “Homeland” main screen) to a second level (e.g., Seasons & Episodes for “Homeland”) to locate Episode 2.



34. In the Accused '026 Patent Products, “a first template of the plurality of different display templates is used as the particular display template for the templated display for displaying the first level of the hierarchical structure and wherein a second template of the

plurality of different display templates is used as the particular display template for the templated display for displaying the second level of the hierarchical structure.” In the example below, the first level template is different from the second level template, e.g., different descriptions and selectable options are displayed.



35. In the Accused '026 Patent Products, “the received video content was uploaded to a Web-based content management system by a content provider device associated with the video content provider via the Internet in a digital video format, along with associated metadata including title information and category information, and along with the associated plurality of images designated by the video content provider, the associated metadata specifying a respective hierarchical location of a respective title of the video content within the electronic program guide to be displayed on the Internet-connected digital device using the respective hierarchically-arranged category information associated with the respective title.” The Accused '026 Patent Products use Amazon Prime Video Direct, which is a web-based portal allowing users to upload video content in a digital format along with uploading images and metadata specified by the content provider in order publish video content on Amazon Prime in accordance with such metadata.

## Overview

Welcome to the help center for Prime Video Direct. Here we provide step-by-step instructions and answers to frequently asked questions. Whether you're new to Prime Video Direct or just need a refresher on how to change your account or update a published video, you'll find the answers here.

Self-publishing via Prime Video Direct helps to provide free exposure and international distribution by giving you control for your titles — from distribution to presentation and marketing to millions of Amazon customers.

Our self-serve approach for all high-quality content providers helps to provide the same flexible distribution options and delivery quality available to major motion picture and television studios.

As always, Amazon customers are our number one priority. We strive to ensure that all titles in our catalog to stream, purchase, or rent are held to a high standard and meets customer expectations on quality. Our review processes are designed so that your titles adhere to our customer quality standards and [Content Policy Guidelines](#) before and after it goes live.

<https://videocentral.amazon.com/home/help>

## Prime Video Direct

Prime Video Direct is our self-publishing platform that helps content creators and visual storytellers reach millions of Amazon customers across hundreds of devices with similar distribution options and delivery quality available to major motion picture and television studios.

For each title, content partners can choose to earn royalties based on hours streamed by Prime customers and a revenue share for rentals or purchases. Content partners can make titles available in territories around the globe on all supported devices—Fire TV, phones, tablets, game consoles, Smart TVs—and on the web.

As a self-service platform, everything needed to deliver content to Prime Video is included on the [Prime Video Direct website](#).

<https://videocentral.amazon.com/home/help?topicId=GWKF2YM3PC5WLAZ8>



**Mezzanine (Video/Audio)**

A mezzanine file is a compressed master video file used by Amazon to deliver content to all devices and download. The file is automatically generated for you for all supported platforms and streaming quality.

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 23 (last visited 5/4/2020)

### Video Assets Tab

PVD supports video resolutions up to 1920x1080p and we automatically adjust delivery streams to match the customer's device and connection.



**Instructions**

1. Click Browse to upload your **mezzanine** (video/audio) file. See [Mezzanine Requirements](#) for more information.
2. Click Browse to upload your **captions** file. See [Captions Requirements](#) for more information.
3. Click Browse to upload a **trailer**.
4. Click **Save** once you've uploaded the required video assets.

**NOTE:** If you save your media assets on Amazon Simple Storage Service (S3), you can use your S3 account to add files for publishing to Prime Video Direct.

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 14 (last visited 5/4/2020)

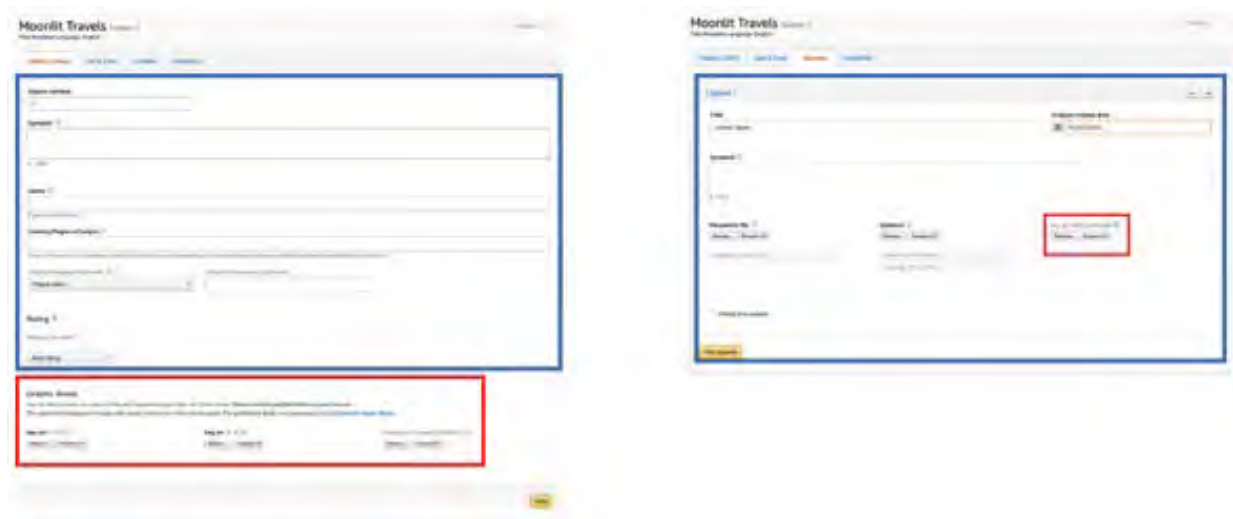
## Asset requirements

Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed. If you submit a 1080p HD video, and a customer streams it in SD, we automatically adjust it for you. For best results, please upload your highest quality video source. After initial publishing, if you submit a revised mezzanine or trailer, it must be at least the same resolution.

<https://videocentral.amazon.com/home/help?topicId=G201073700>



36. In the Accused '026 Patent Products, “the received video content was uploaded to a Web-based content management system by a content provider device associated with the video content provider via the Internet in a digital video format, along with associated metadata including title information and category information, and along with the associated plurality of images designated by the video content provider”, as shown in the example below.



### Getting Started – 3 “Must Have” Assets and Top Tips

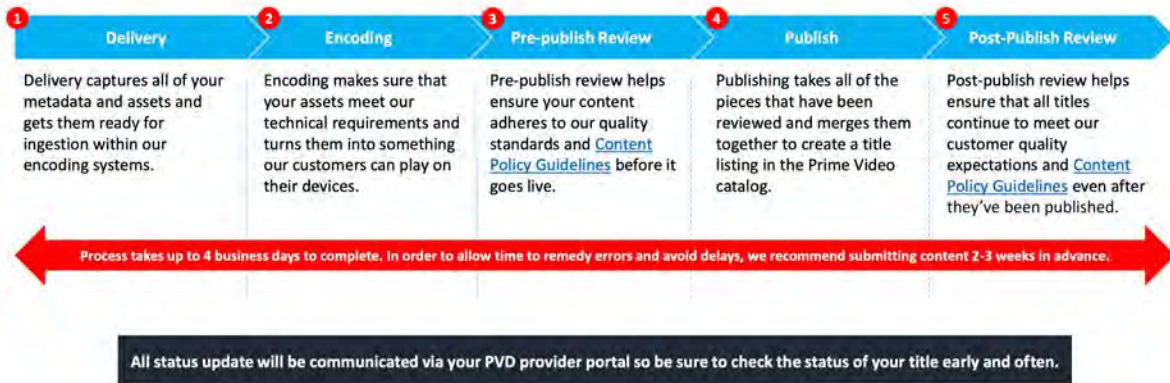
There are 3 major assets you need to have before getting started:

	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>Watermark/Logo/URL</li> <li>Mismatched video and audio durations</li> <li>Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>Out of sync/incoherent</li> <li>Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>Padded images/Stretched/narrowed images</li> <li>Title name not displayed</li> <li>Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).

## Publishing Process Overview

When you have uploaded all the necessary assets and clicked the “publish” button, your title has to go through a process we call “Publishing”. Here are the steps that happen after you click publish:



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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
<b>Title Name</b>	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
<b>Category</b>	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
<b>Title Metadata Language</b>	This is the language of the <b>Title Name</b> , synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
<b>Synopsis</b>	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
<b>Genre</b>	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
<b>Country of Origin</b>	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
<b>Rating</b>	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
<b>Cast and Crew Information</b>	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
<b>Mezzanine File</b>	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
<b>Captions File</b>	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
<b>Key Art</b>	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
<b>Availability Options</b>	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Creating a Title Entry – Part 2

When you click “Add Title,” the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing

The screenshot shows the 'Add Title' form with three callouts:

- 1 Title**: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2 Category**: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3 Title Metadata Language**: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to). Choose a title metadata language that matches the language of your mezzanine or captions. [Learn more](#).

The form fields are: Title (text input), Category (dropdown menu showing 'Short films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

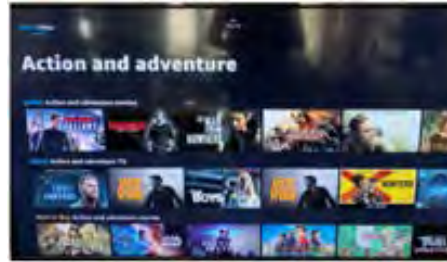
prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

37. In the Accused '026 Patent Products, “the received video content was uploaded to a Web-based content management system by a content provider device associated with the video content provider via the Internet in a digital video format, along with associated metadata including title information and category information, and along with the associated plurality of images designated by the video content provider, the associated metadata specifying a respective hierarchical location of a respective title of the video content within the electronic program guide to be displayed on the Internet-connected digital device using the respective hierarchically-arranged category information associated with the respective title.” For example, the channel, genre, TV show, and season are categories and/or subcategories that specify a respective hierarchical location for episodes of the TV show within the Prime Video EPG.







38. In the Accused '026 Patent Products, “at least one of the uploaded associated plurality of images designated by the video content provider is displayed with the associated respective title in the templated video-on-demand display.” For example, Amazon’s Prime Video EPG includes uploaded images in the VOD display for each title (e.g., episode).



39. Amazon has infringed, and continues to infringe, literally and/or under the doctrine of equivalents at least claim 1 of the '026 Patent in the United States, by making, using, offering for sale, selling and/or importing the Accused '026 Patent Products in violation of 35 U.S.C. § 271(a).

40. Amazon also has infringed, and continues to infringe, claim 1 of the '026 Patent by actively inducing others to use, offer for sale, and sell the Accused '026 Patent Products. Amazon's users, customers, agents, and/or other third parties who use those products in accordance with Amazon's instructions infringe at least claim 1 of the '026 Patent, in violation of 35 U.S.C. § 271(a). Because Amazon intentionally instructs its customers to infringe through training videos, demonstrations, online instructions, and user guides, such as those located at: <https://videocentral.amazon.com/home/help>; [https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD Partner Onboarding Guide 1.ppt](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.ppt)

df; <https://www.amazon.com/gp/help/customer/display.html/>; <https://www.primevideo.com/help>; <https://videodirect.amazon.com/home/landing>; and related domains and subdomains, Amazon is liable for inducing infringement under U.S.C. § 271(b).

41. Amazon also has infringed, and continues to infringe, at least claim 1 of the '026 Patent by offering to commercially distribute, commercially distributing or importing the Accused '026 Patent Products, which are used in practicing the processes or using the systems of the '026 Patent, and constitute a material part of the invention. For example, Amazon provides apps to users, who then install those apps on their ICDDs such as smartphones, media players/set-top boxes, and tablets. An ICDD that has been configured to use Amazon's apps to access Amazon's VOD platform infringes at least claim 1 of the '026 Patent, in violation of 35 U.S.C. § 271(a). Amazon knows portions of the Accused '026 Patent Products to be especially made or especially adapted for use in infringement of the '026 Patent, and not to be staple articles, and not to be commodities of commerce suitable for substantial noninfringing use. Amazon is thereby liable for contributory infringement of the '026 Patent under U.S.C. § 271(c).

42. Amazon is on notice of its infringement of the '026 Patent by no later than the filing and service of this Complaint. Amazon also received notice of its infringement of the '026 Patent on October 5, 2020, when BBiTV served Amazon with an infringement notice letter. By the time of trial, Amazon will have known and intended (since receiving such notice) that its continued actions would actively induce the infringement of at least claim 1 of the '026 Patent.

43. Upon information and belief, Amazon may have infringed and continues to infringe the '026 Patent through other software and devices utilizing the same or reasonably similar functionality, including other versions of the Accused '026 Patent Products.

44. Amazon's acts of direct and indirect infringement have caused and continue to cause damage to BBiTV. BBiTV is, therefore, entitled to recover damages sustained as a result of Amazon's wrongful acts in an amount that is proven at trial.



**COUNT II – INFRINGEMENT OF U.S. PATENT NO. 9,648,388**

45. The allegations of paragraphs 1-44 of this Complaint are incorporated by reference as though fully set forth herein.

46. The '388 Patent, titled "Video-on-demand content delivery system for providing video-on-demand services to TV services subscribers" issued on May 9, 2017. A copy of the '388 Patent is attached as **Exhibit B**.

47. Pursuant to 35 U.S.C. § 282, the '388 Patent is presumed valid.

48. Upon information and belief, Amazon makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that provide Amazon's subscribers with video-on-demand services using ICDDs (collectively the "Accused '388 Patent Products").

49. Upon information and belief, the Accused '388 Patent Products infringe literally and/or under the doctrine of equivalents at least claim 1 of the '388 Patent in the exemplary manner described below.

50. Exemplary claim 1 of the '388 patent claims:

A set-top box, providing video-on-demand services and operatively connected to TV equipment of a TV service subscriber, programmed to perform the steps of:

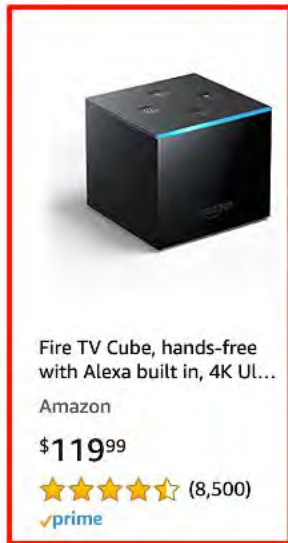
- (a) receiving, at the set-top box, via a closed system from a video-on-demand content delivery system comprising one or more computers and computer-readable memory operatively connected to the one or more computers, respective video-on-demand application-readable metadata that is associated with respective video content and is usable to generate a video-on-demand content menu;

wherein the respective video content was uploaded to a Web-based content management system by a respective content provider device associated with a respective video content provider via the Internet in a digital video format along with respective specified metadata including respective title information, category information, and subcategory information designated by the respective video content provider to specify a respective hierarchical location of a respective title of the respective

video content within the video-on-demand content menu displayed on the TV equipment, wherein the respective video-on-demand application-readable metadata is generated according to the respective specified metadata;

- (b) providing, to the TV subscriber at the set-top box, the video-on-demand content menu for navigating through titles, including the respective titles of the respective video content, in a drill-down manner by category information and subcategory information in order to locate a particular one of the titles whose associated video content is desired for viewing on the TV equipment, wherein the video-on-demand content menu lists the titles using the same hierarchical structure of respective category information and subcategory information as was designated by the respective video content provider in the respective specified metadata for the respective video content, wherein a plurality of different video display templates are accessible to the set-top box, and wherein the video-on-demand content menu is generated using at least one of the plurality of different video display templates and based at least upon the respective specified metadata; and
- (c) in response to the TV service subscriber selecting, via a control unit in communication with the set-top box, a first respective title associated with a first video content from the hierarchical structure of respective category information and subcategory information of the video-on-demand content menu using drill-down navigation, transmitting the selection to the set-top box for display on the TV equipment; and
- (d) receiving, at the set-top box, the first video content for display on the TV equipment of the TV service subscriber, wherein in response to the selection the first video content was retrieved from a video server associated with the video-on-demand content delivery system.

51. The Accused '388 Patent Products are set-top boxes (e.g., the Fire TV Cube) for providing VOD services and that is operatively connected to subscriber TV equipment.



52. The Accused '388 Patent Products are each "[a] set-top box, providing video-on-demand services and operatively connected to TV equipment of a TV service subscriber, programmed to perform the steps of: (a) receiving, at the set-top box, via a closed system from a video-on-demand content delivery system comprising one or more computers and computer-readable memory operatively connected to the one or more computers, respective video-on-demand application-readable metadata that is associated with respective video content and is usable to generate a video-on-demand content menu." For example, the Accused '388 Patent Products are each a set-top box that receives VOD application-readable metadata associated with VOD content, which is used to generate a VOD menu. Prime Video is a closed system, protected by authentication and encryption measures enacted by Amazon to enforce copyright restrictions imposed by content suppliers.

## Publishing requirements

All titles must include the following information:

- **Title Name** — This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.
- **Category** — This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clip). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct. For more information, see [Publishing FAQs - How do I select the appropriate Category for my title?](#)
- **Title Metadata Language** — This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected. For more information, see [Location Requirements](#).
- **Synopsis** — This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.
- **Genre** — Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime Video may add or remove genres to improve discoverability. For a complete list, see [Genre Definitions](#).
- **Country of Origin** — The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).
- **Rating** — Regulators or organizations in each marketplace create ratings criteria for movies and TV shows, however if your title is not officially rated, you must select **Suggested Rating - Title not officially rated**.
- **Cast and Crew Information** — A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.
- **Mezzanine File** — Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjust the delivery streams to a resolution appropriate to the customer's device and connection speed. For more information, see [Mezzanine Requirements](#).
- **Captions File** — Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. For more information, see [Captions Requirements](#).
- **Key Art** — Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name. For more information, see [Art requirements](#).
- **Availability Options** — You can select which territories and how you want to make your title available to Amazon Customers. (remember, eligible locations depend on the metadata language you selected when adding your title). For more information, see [Royalty information](#).

<https://videocentral.amazon.com/home?helo?topicId=GG5ONX4NA2MEWRRA>

## Getting Started – 3 “Must Have” Assets and Top Tips

There are 3 major assets you need to have before getting started:

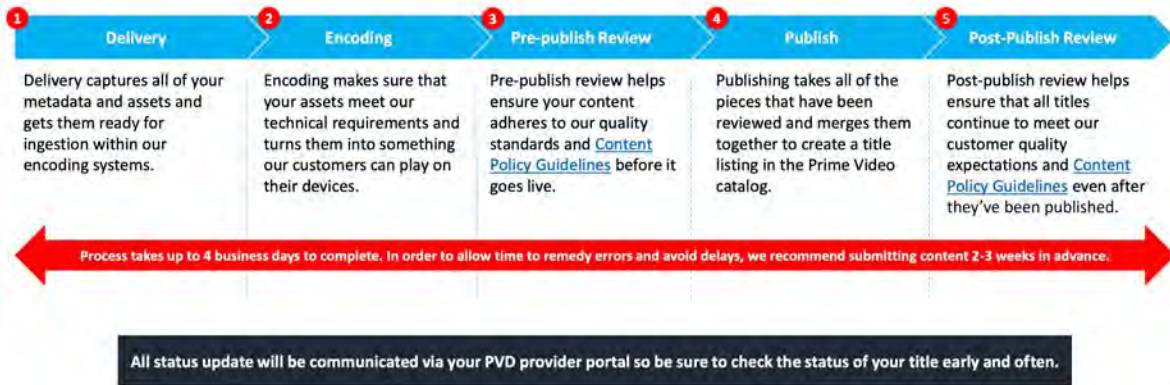
	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
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<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).



## Publishing Process Overview

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
Title Name	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
Category	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
Title Metadata Language	This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
Synopsis	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
Genre	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
Country of Origin	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
Rating	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
Cast and Crew Information	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
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Captions File	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
Key Art	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
Availability Options	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Creating a Title Entry – Part 2

When you click “Add Title,” the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing

The screenshot shows the 'Add Title' form with three callouts:

- 1** Title ⓘ: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2** Category ⓘ: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3** Title Metadata Language ⓘ: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to). Choose a title metadata language that matches the language of your mezzanine or captions. [Learn more](#).

The form fields are: Title (text input), Category (dropdown menu showing 'Short films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

### Amazon Prime Video Usage Rules

As described in the [Amazon Prime Video Terms of Use](#), due to limitations imposed on us by our content suppliers, the videos we make available to you on Amazon Prime Video are subject to restrictions on viewing (for example, through streaming or download) and on the length of time we make them available to you. The specific restrictions applicable to each of your videos depends on whether you purchase the video, rent the video, access the video on a subscription basis (for example, through Prime Video) through a paid subscription or a promotional trial, or access the video through First Episode Free (where available). These restrictions may change over time as we add new features, devices and content to our service. The following are restrictions for accessing Amazon Prime Video through your Web browser and compatible Internet-connected TVs, Blu-ray players, set-top boxes, Fire tablets and other compatible devices.

[https://www.primevideo.com/help/ref=atv\\_hp\\_cnt?\\_encoding=UTF8&nodeId=202095500](https://www.primevideo.com/help/ref=atv_hp_cnt?_encoding=UTF8&nodeId=202095500)

53. The Accused '388 Patent Products are each “[a] set-top box, providing video-on-demand services and operatively connected to TV equipment of a TV service subscriber, programmed to perform the steps of: (a) receiving, at the set-top box, via a closed system from a video-on-demand content delivery system comprising one or more computers and computer-readable memory operatively connected to the one or more computers, respective video-on-demand application-readable metadata that is associated with respective video content and is usable to generate a video-on-demand content menu.” Prime Video is implemented in AWS, which comprises computers and memory operatively connected to the computers.

Content partners on Prime Video vary from independent filmmakers to global major motion picture and TV studios who manage their deliveries, metadata, assets, and business performance with Video Central. The systems, applications, and APIs that support content providers operate at a large scale, must be highly available and work on increasingly diverse systems securely. We are looking for creative, deeply technical and hands-on Software Engineers to take the Video Central architectures and systems we are building to the next level. We have an ambitious charter, and on this team you will be able to get your hands on lots of technologies. We use AWS technologies for most of our stack, including data storage in S3, DynamoDB, SNS, SQS etc.

<https://www.amazon.jobs/en/jobs/996916/software-development-engineer-i-prime-video>

54. The Accused '388 Patent Products each enable “video content [to be] uploaded to a Web-based content management system by a respective content provider device associated with a respective video content provider via the Internet in a digital video format.”

## Overview

Welcome to the help center for Prime Video Direct. Here we provide step-by-step instructions and answers to frequently asked questions. Whether you're new to Prime Video Direct or just need a refresher on how to change your account or update a published video, you'll find the answers here.

Self-publishing via Prime Video Direct helps to provide free exposure and international distribution by giving you control for your titles — from distribution to presentation and marketing to millions of Amazon customers.

Our self-serve approach for all high-quality content providers helps to provide the same flexible distribution options and delivery quality available to major motion picture and television studios.

As always, Amazon customers are our number one priority. We strive to ensure that all titles in our catalog to stream, purchase, or rent are held to a high standard and meets customer expectations on quality. Our review processes are designed so that your titles adhere to our customer quality standards and [Content Policy Guidelines](#) before and after it goes live.

<https://videocentral.amazon.com/home/help>

## Prime Video Direct

Prime Video Direct is our self-publishing platform that helps content creators and visual storytellers reach millions of Amazon customers across hundreds of devices with similar distribution options and delivery quality available to major motion picture and television studios.

For each title, content partners can choose to earn royalties based on hours streamed by Prime customers and a revenue share for rentals or purchases. Content partners can make titles available in territories around the globe on all supported devices—Fire TV, phones, tablets, game consoles, Smart TVs—and on the web.

As a self-service platform, everything needed to deliver content to Prime Video is included on the [Prime Video Direct website](#).

<https://videocentral.amazon.com/home/help?topicId=GWKF2YM3PC5WLAZ8>





## Asset requirements

Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed. If you submit a 1080p HD video, and a customer streams it in SD, we automatically adjust it for you. For best results, please upload your highest quality video source. After initial publishing, if you submit a revised mezzanine or trailer, it must be at least the same resolution.

<https://videocentral.amazon.com/home?ref=help&docId=6710971700>

55. The Accused '388 Patent Products each enable the “respective video content [that] was uploaded to a Web-based content management system by a respective content provider device associated with a respective video content provider via the Internet in a digital video format along with respective specified metadata including respective title information, category information, and subcategory information designated by the respective video content provider to specify a respective hierarchical location of a respective title of the respective video content within the video-on-demand content menu displayed on the TV equipment, wherein the respective video-on-demand application-readable metadata is generated according to the respective specified metadata.



**Moonlit Travels** Season 1  
This Metadata Language: English

Building Library | Add & Edit | Release | Add Metadata

Series number: 1

Synopsis:

TV-14

Genre:

3 genres maximum

Country/Region of origin:

Order of countries in production, with the first being corresponding to the production company with the largest economic footprint.

Original language (Required):

Mezzanine file (Optional):

Rating:

Rating (TV-14)

Add rating

**Graphic Assets**  
Key art (See Amazon.com for details and requirements for titles on Prime Video. Please include legible titles and your key art. The selected background image with image assets to cover entire screen. For additional tips and requirements, see the [Graphic Assets Guide](#).)

Key art (1 x 1):

Mezzanine (1 x 1):

Thumbnail (1 x 1):

Save

**Moonlit Travels** Season 1  
This Metadata Language: English

Building Library | Add & Edit | Release | Add Metadata

Title:

Original release date:

Synopsis:

Mezzanine file:

Captions:

Key art (1 x 1):

Mezzanine (1 x 1):

Thumbnail (1 x 1):

Add Assets

## Getting Started – 3 “Must Have” Assets and Top Tips

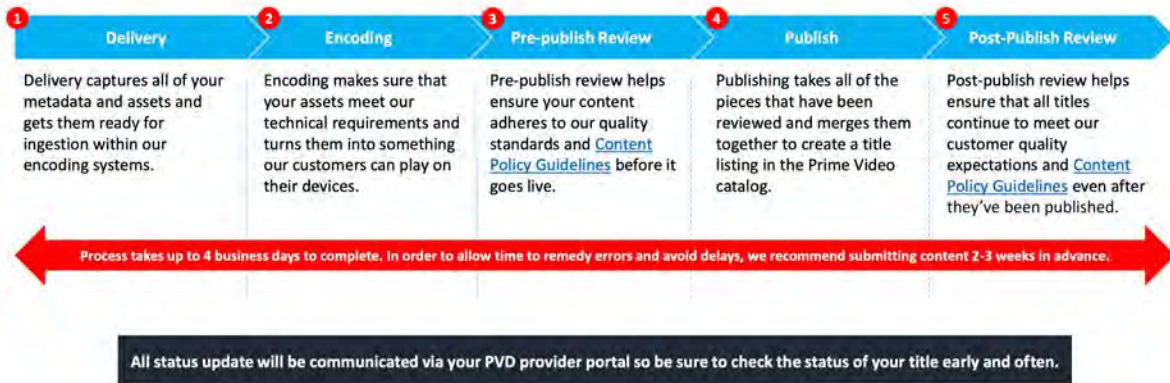
There are 3 major assets you need to have before getting started:

	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>Watermark/Logo/URL</li> <li>Mismatched video and audio durations</li> <li>Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>Out of sync/incoherent</li> <li>Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>Padded images/Stretched/narrowed images</li> <li>Title name not displayed</li> <li>Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).

## Publishing Process Overview

When you have uploaded all the necessary assets and clicked the “publish” button, your title has to go through a process we call “Publishing”. Here are the steps that happen after you click publish:



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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
Title Name	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
Category	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
Title Metadata Language	This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
Synopsis	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
Genre	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
Country of Origin	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
Rating	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
Cast and Crew Information	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
Mezzanine File	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
Captions File	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
Key Art	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
Availability Options	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Creating a Title Entry – Part 2

When you click “Add Title,” the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing

The screenshot shows the 'Add Title' form with three callouts:

- 1** Title: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2** Category: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3** Title Metadata Language: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to).

The form fields are: Title (text input), Category (dropdown menu showing 'Short films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

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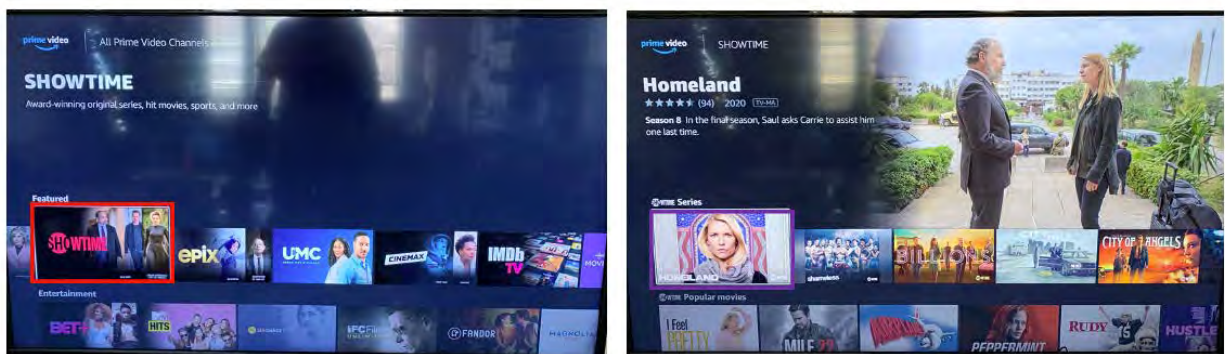
[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

56. The Accused '388 Patent Products enable the “respective video content [that] was uploaded to a Web-based content management system by a respective content provider device associated with a respective video content provider via the Internet in a digital video format along with respective specified metadata including respective title information, category information, and subcategory information designated by the respective video content provider to specify a respective hierarchical location of a respective title of the respective video content within the video-on-demand content menu displayed on the TV equipment, wherein the respective video-on-demand application-readable metadata is generated according to the respective specified metadata. For example, the channel, genre, TV show, and season are categories and/or subcategories that specify a respective hierarchical location for episodes of the TV show within the Prime Video EPG.

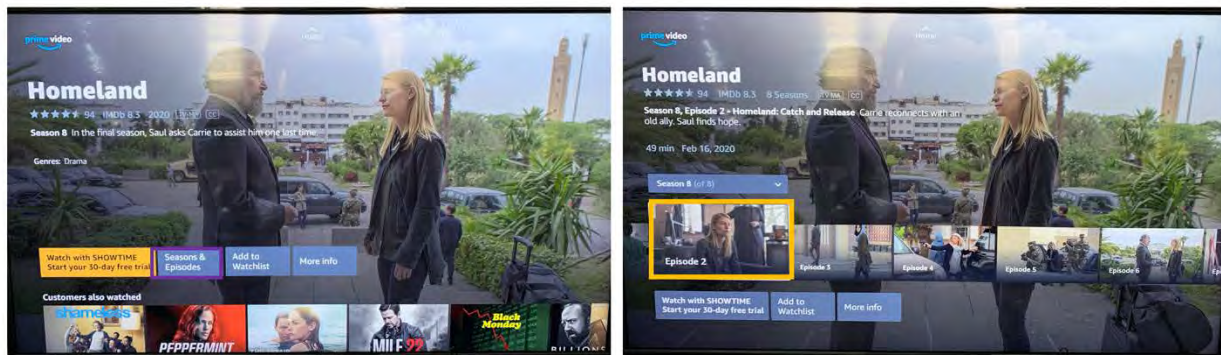




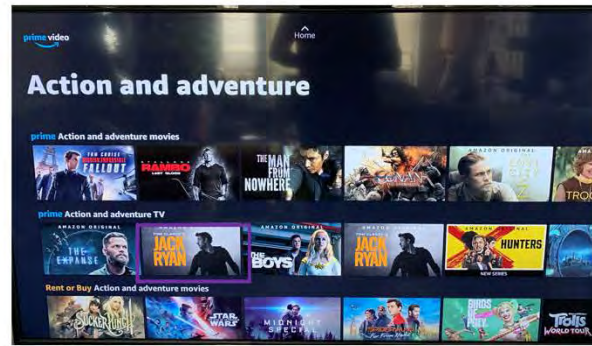
57. The Accused '388 Patent Products each “provid[e] to the TV subscriber at the set-top box, the video-on-demand content menu for navigating through titles, including the respective titles of the respective video content, in a drill-down manner by category information and subcategory information in order to locate a particular one of the titles whose associated video content is desired for viewing on the TV equipment. In one example, the Accused '388 Patent Products enable a subscriber to drill down through titles by category and subcategory information, for example, starting from the Prime Video Channels Menu and selecting a channel (e.g., Showtime) and further selecting a TV show (e.g., “Homeland”).



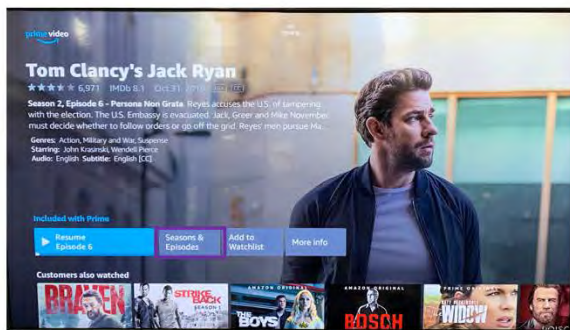
58. The Accused '388 Patent Products each “provid[e] to the TV subscriber at the set-top box, the video-on-demand content menu for navigating through titles, including the respective titles of the respective video content, in a drill-down manner by category information and subcategory information in order to locate a particular one of the titles whose associated video content is desired for viewing on the TV equipment. In this exemplary drill down, the subscriber may choose a Season and Episode and select Episode 2 of “Homeland” for viewing.



59. The Accused '388 Patent Products each “provid[e] to the TV subscriber at the set-top box, the video-on-demand content menu for navigating through titles, including the respective titles of the respective video content, in a drill-down manner by category information and subcategory information in order to locate a particular one of the titles whose associated video content is desired for viewing on the TV equipment. In this exemplary drill down, the subscriber’s drill down navigation starts in the “Categories” menu where a user selects a category (e.g., Action and adventure) and drills into a subcategory (e.g., “Jack Ryan”).



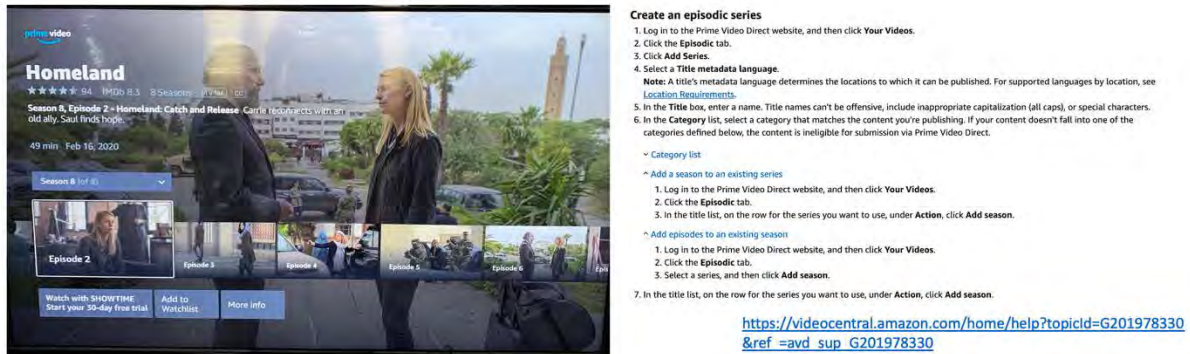
60. The Accused '388 Patent Products each “provid[e] to the TV subscriber at the set-top box, the video-on-demand content menu for navigating through titles, including the respective titles of the respective video content, in a drill-down manner by category information and subcategory information in order to locate a particular one of the titles whose associated video content is desired for viewing on the TV equipment. At this end of this exemplary drill down, the subscriber may choose a Season and Episode and select Episode 6 of “Jack Ryan” for viewing.



61. The Accused '388 Patent Products each enable “the video-on-demand content menu [to list] the titles using the same hierarchical structure of respective category information and subcategory information as was designated by the respective video content provider in the



respective specified metadata for the respective video content. The Prime Video EPG menu lists the titles using the same hierarchical structure designated by the content provider.



62. The Accused '388 Patent Products each enable “a plurality of different video display templates to be accessible to the set-top box. For example, the Prime Video EPG uses templated displays comprising multiple display templates.



63. The Accused '388 Patent Products each enable “the video-on-demand content menu [to be] generated using at least one of the plurality of different video display templates and based at least upon the respective specified metadata. The VOD menu is generated using one of the display templates and includes metadata.



## Getting Started – 3 “Must Have” Assets and Top Tips

There are 3 major assets you need to have before getting started:

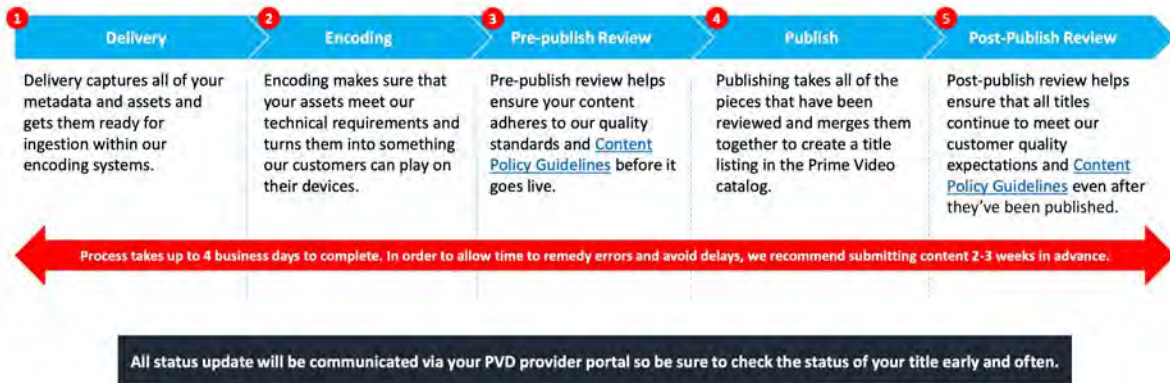
	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>Watermark/Logo/URL</li> <li>Mismatched video and audio durations</li> <li>Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>Out of sync/incoherent</li> <li>Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>Padded images/Stretched/narrowed images</li> <li>Title name not displayed</li> <li>Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).



## Publishing Process Overview

When you have uploaded all the necessary assets and clicked the “publish” button, your title has to go through a process we call “Publishing”. Here are the steps that happen after you click publish:



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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
<b>Title Name</b>	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
<b>Category</b>	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
<b>Title Metadata Language</b>	This is the language of the <b>Title Name</b> , synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
<b>Synopsis</b>	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
<b>Genre</b>	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
<b>Country of Origin</b>	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
<b>Rating</b>	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
<b>Cast and Crew Information</b>	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
<b>Mezzanine File</b>	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
<b>Captions File</b>	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
<b>Key Art</b>	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
<b>Availability Options</b>	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Creating a Title Entry – Part 2

When you click “Add Title,” the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing

The screenshot shows the 'Add Title' form with three callouts:

- 1 Title**: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2 Category**: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3 Title Metadata Language**: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to).

The form fields are:

- Title**: A text input field.
- Category**: A dropdown menu showing 'Short films'.
- Title Metadata Language**: A dropdown menu showing 'English'.

Buttons at the bottom: Cancel, Continue.

### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

64. The Accused '388 Patent Products each enable that “in response to the TV service subscriber selecting, via a control unit in communication with the set-top box, a first respective title associated with a first video content from the hierarchical structure of respective category information and subcategory information of the video-on-demand content menu using drill-down navigation, transmitting the selection to the set-top box for display on the TV equipment. For example, the Fire TV Cube includes a remote control that transmits IR signals to the remainder of the set-top box to allow a subscriber to select a title using drill down navigation.



65. The Accused '388 Patent Products each enable “receiving, at the set-top box, the first video content for display on the TV equipment of the TV service subscriber, wherein in response to the selection the first video content was retrieved from a video server associated with the video-on-demand content delivery system. Upon selection of an episode, the video content for the episode is streamed to the set-top box for display.





66. Amazon has infringed, and continues to infringe, literally and/or under the doctrine of equivalents at least claim 1 of the '388 Patent in the United States, by making, using, offering for sale, selling and/or importing the Accused '388 Patent Products in violation of 35 U.S.C. § 271(a).

67. Amazon also has infringed, and continues to infringe, at least claim 1 of the '388 Patent by actively inducing others to use, offer for sale, and sell the Accused '388 Patent Products. Amazon's users, customers, agents, and/or other third parties who use those products and/or Amazon's VOD service in accordance with Amazon's instructions infringe at least claim 1 of the '388 Patent, in violation of 35 U.S.C. § 271(a). Because Amazon intentionally instructs its customers to infringe through training videos, demonstrations, online instructions and user guides, such as those located at: <https://videocentral.amazon.com/home/help>; [https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf); <https://www.amazon.com/gp/help/customer/display.html/>; <https://www.primevideo.com/help>; <https://videodirect.amazon.com/home/landing>; and related domains and subdomains, Amazon is liable for infringement of the '388 Patent under 35 U.S.C. § 271(b).

68. Amazon also has infringed, and continues to infringe, at least claim 1 of the '388 Patent by offering to commercially distribute, commercially distributing or importing the Accused '388 Patent Products, which are used in practicing the processes or using the systems of the '388 Patent, and constitute a material part of the invention. For example, Amazon provides apps to users, who then install those apps on their ICDDs, such as media players/set-top boxes. A media player/set-top box that has been configured to use Amazon's apps to access Amazon's VOD platform infringed at least claim 1 of the '388 Patent, in violation of 35 U.S.C. § 271(a). Amazon knows portions of the Accused '388 Patent Products to be especially made or especially adapted for use in infringement of the '388 Patent, and not to be staple articles, and not to be



commodities of commerce suitable for substantial noninfringing use. Amazon is thereby liable for contributory infringement of the '388 Patent under U.S.C. § 271(c).

69. Amazon is on notice of its infringement of the '388 Patent by no later than the filing and service of this Complaint. Amazon also received notice of its infringement of the '388 Patent on October 5, 2020 when BBiTV served Amazon with an infringement notice letter. By the time of trial, Amazon will have known and intended (since receiving such notice) that its continued actions would actively induce the infringement of at least claim 1 of the '388 Patent.

70. Upon information and belief, Amazon may have infringed and continues to infringe the '388 Patent through other software and devices utilizing the same or reasonably similar functionality, including other versions of the Accused '388 Patent Products.

71. Amazon's acts of direct and indirect infringement have caused and continue to cause damage to BBiTV. BBiTV is, therefore, entitled to recover damages sustained as a result of Amazon's wrongful acts in an amount that is proven at trial.

### **COUNT III – INFRINGEMENT OF U.S. PATENT NO. 10,536,750**

72. The allegations of paragraphs 1-71 of this Complaint are incorporated by reference as though fully set forth herein.

73. The '750 Patent, titled "Video-on-demand content delivery system for providing video-on-demand services to TV services subscribers" issued on January 14, 2020. A copy of the '750 Patent is attached as **Exhibit C**.

74. Pursuant to 35 U.S.C. § 282, the '750 Patent is presumed valid.

75. Upon information and belief, Amazon makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that provide Amazon's subscribers with video-on-demand services using ICDDs (collectively the "Accused '750 Patent Products").

76. Upon information and belief, the Accused '750 Patent Products infringe literally and/or under the doctrine of equivalents at least claim 1 of the '750 Patent in the exemplary manner described below.

77. Exemplary claim 1 of the '750 patent claims:

A video-on-demand application server system comprising one or more computers and computer-readable memory operatively connected to the one or more computers of the video-on-demand application server system, and programmed to perform at least the following steps:

- (a) receiving, by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu,

wherein the first video-on-demand application-readable metadata comprises:

- (1) first title information comprising a first title, and
- (2) first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a video-on-demand application, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu;

wherein the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information, designated by the first video content provider, to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu using first category information and first subcategory information associated with the first title information;

- (b) generating, by the video-on-demand application server system, video-on-demand content menu information data, including at least the first video-on-demand

application-readable metadata associated with the first video content and usable to populate the video-on-demand content menu;

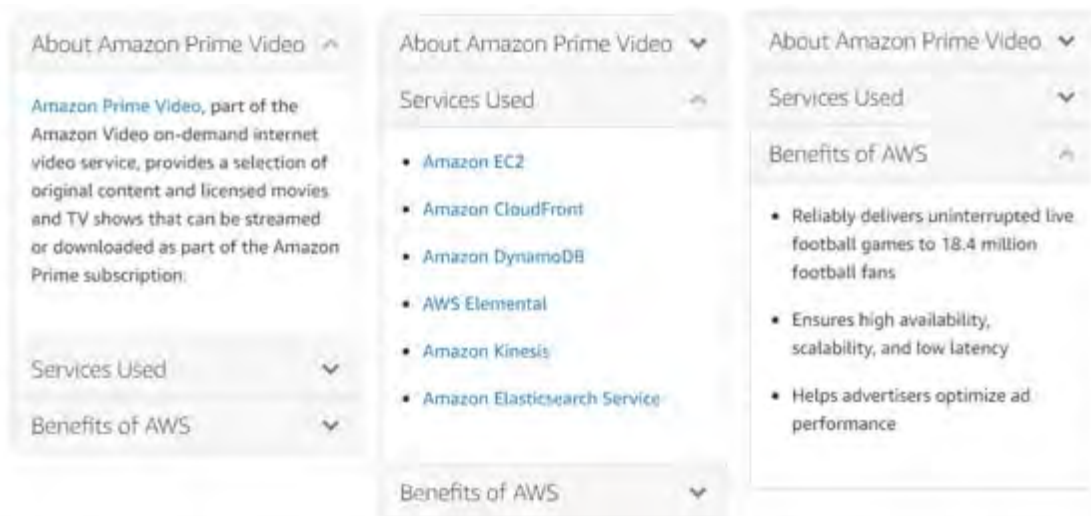
- (c) sending, from the video-on-demand application server system to a respective set top box operatively connected to respective television equipment of a respective television service subscriber the generated video-on-demand content menu information data;
- (d) generating, at the respective set-top box, using the video-on-demand content menu information data, the video-on-demand content menu for navigating through titles, including the first title of the first video content, by hierarchically-arranged category information and subcategory information, including at least the first category information and the first subcategory information in order to locate a respective one of the titles whose associated video content is desired for viewing on respective television equipment,

wherein the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content, wherein a plurality of different display templates, including a first display template, are accessible;

- (e) receiving, by the video-on-demand application server system from the respective set top box, an electronic request for the first video content associated with the selected first title for display on the television equipment of the television service subscriber in response to the respective television service subscriber selecting, via a television control unit in communication with the respective set top box, the respective title associated with the video content from the hierarchically-arranged category information and subcategory information of the video-on-demand content menu;
- (f) causing, by the video-on-demand application server system, to be transmitted to the respective set top box from a video server, the selected first video content for display on the respective TV equipment.

78. Amazon provides a video-on-demand application server system with a web-based content management system that provides content providers with the ability to upload content and metadata, and users with the ability to view electronic media content on a set top box (e.g., Amazon Fire TV Cube, Apple TV, Roku, etc.) via an Internet connection. Amazon's video-on-demand application server system is built on Amazon Web Services (AWS), which includes

several types of services. These services work to provide users with the ability to view content streamed to their devices through the Amazon Prime Video platform.



<https://aws.amazon.com/solutions/case-studies/amazon-prime-video/> last visited 5/4/2020

79. Amazon allows content providers to upload content to the Amazon Prime Video streaming service through "Prime Video Direct," which includes a web-based content management system.



## Overview

Welcome to the help center for Prime Video Direct. Here we provide step-by-step instructions and answers to frequently asked questions. Whether you're new to Prime Video Direct or just need a refresher on how to change your account or update a published video, you'll find the answers here.

Self-publishing via Prime Video Direct helps to provide free exposure and international distribution by giving you control for your titles — from distribution to presentation and marketing to millions of Amazon customers.

Our self-serve approach for all high-quality content providers helps to provide the same flexible distribution options and delivery quality available to major motion picture and television studios.

As always, Amazon customers are our number one priority. We strive to ensure that all titles in our catalog to stream, purchase, or rent are held to a high standard and meets customer expectations on quality. Our review processes are designed so that your titles adhere to our customer quality standards and [Content Policy Guidelines](#) before and after it goes live.

### PARTNER ONBOARDING GUIDE

Start with our [Partner Onboarding Guide](#) for a step-by-step walkthrough of the Prime Video Direct publishing process.

<https://videodirect.amazon.com/home/help?topicId=G202013390> last visited 5/4/2020

### Prime Video Direct

Prime Video Direct is our self-publishing platform that helps content creators and visual storytellers reach millions of Amazon customers across hundreds of devices with similar distribution options and delivery quality available to major motion picture and television studios.

For each title, content partners can choose to earn royalties based on hours streamed by Prime customers and a revenue share for rentals or purchases. Content partners can make titles available in territories around the globe on all supported devices—Fire TV, phones, tablets, game consoles, Smart TVs—and on the web.

As a self-service platform, everything needed to deliver content to Prime Video is included on the [Prime Video Direct website](#).

<https://videocentral.amazon.com/home/help?topicId=GWKF2YM3PC5WLAZ8>

80. Content from Prime Video is made available to stream to set top boxes sold by Amazon (several examples shown below) to users with an Amazon Prime account.



<https://www.amazon.com/Amazon-Video/fh/?node=2858778011> last visited 5/4/2020.



<https://www.primetvvideo.com/> last visited 5/4/2020



[www.amazon.com/b?node=8521791011](https://www.amazon.com/b?node=8521791011) last visited 5/4/2020

<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07XGYB6D6> last visited 5/4/2020

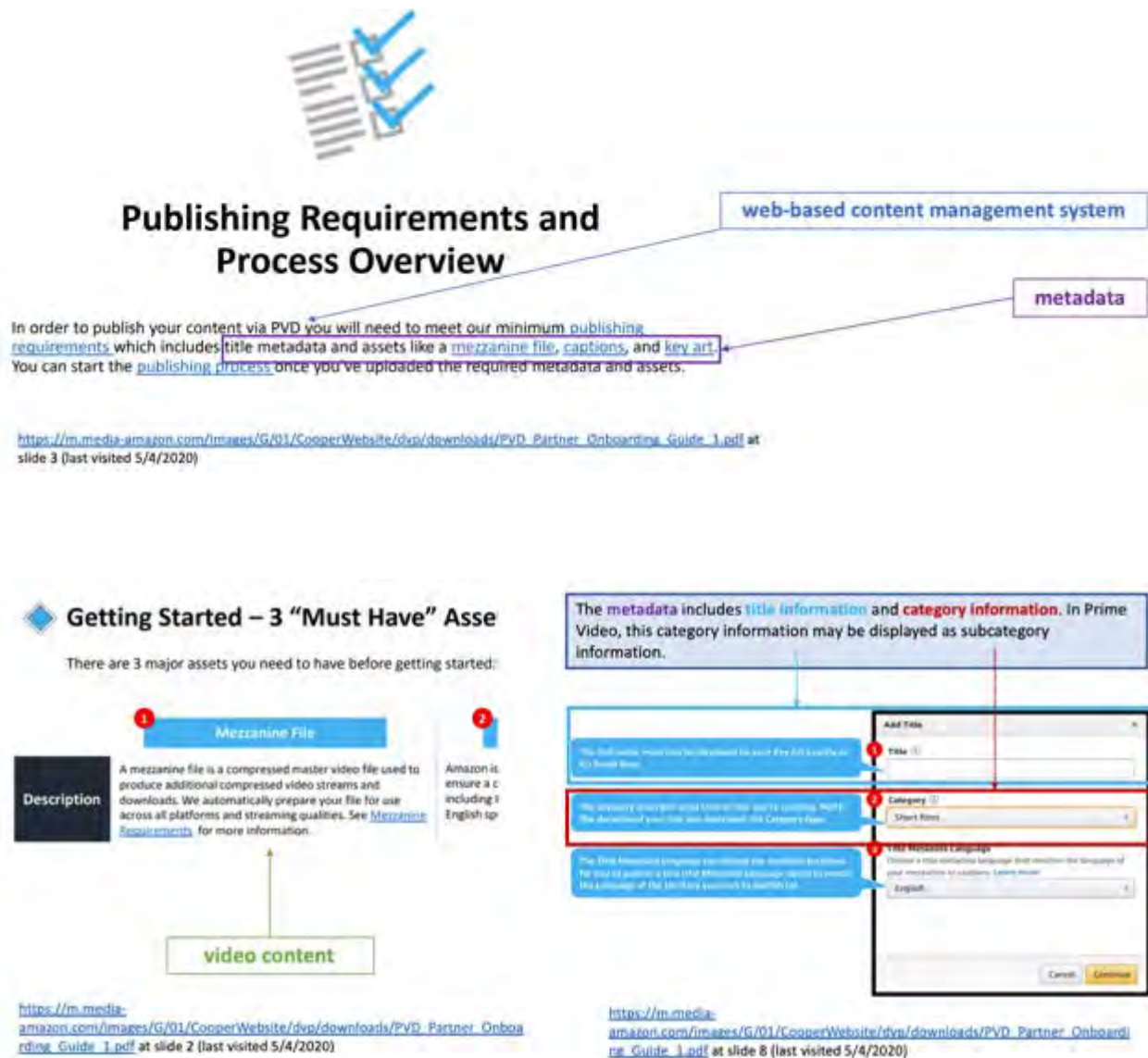


APPLE TV APP STORE (last visited Apr. 20, 2020)

81. The Accused '750 Patent Products include “[a] video-on-demand application server system comprising one or more computers and computer-readable memory operatively connected to the one or more computers of the video-on-demand application server system.” For example, Amazon Prime Video runs on AWS as the underlying technology for all its services and AWS is a cloud provider which provides computers and computer-readable memory operatively connected to the computers.



82. The Accused '750 Patent Products "receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu. For example, content providers use a web-based content management system called Prime Video Direct ("PVD") to upload videos that are available on Prime Video and when content providers upload content to PVD they upload video content in a digital format along with metadata.

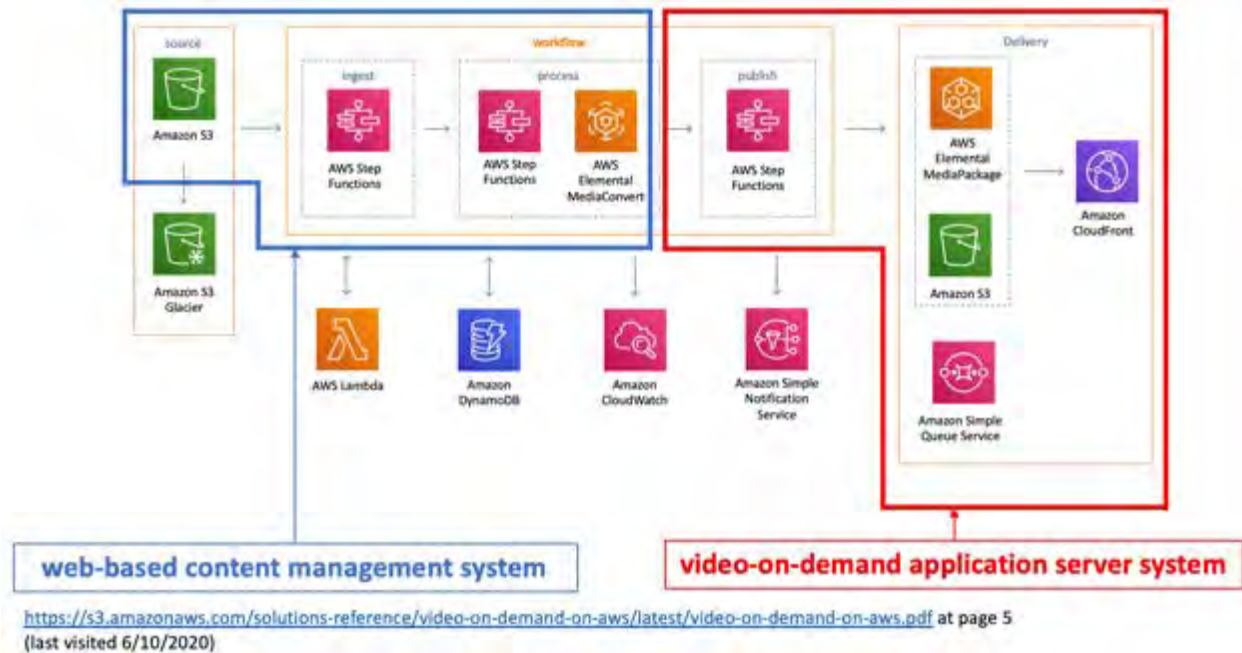


83. Prime Video (the video-on-demand application server system) receives the content including the video content in digital format and related metadata and images that were uploaded through the PVD web-based content management system and “[creates] a title listing in the Prime Video catalog,” which title listing is part of a video-on-demand content menu.

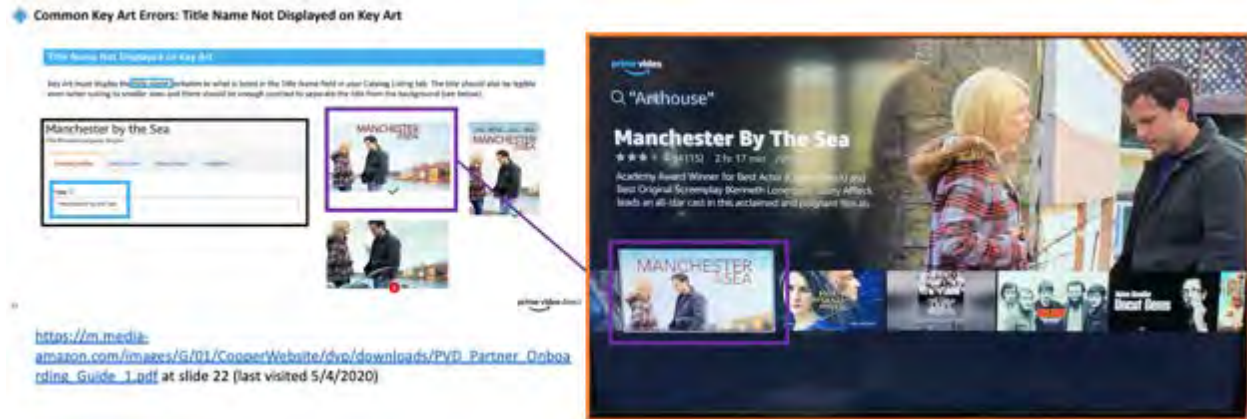




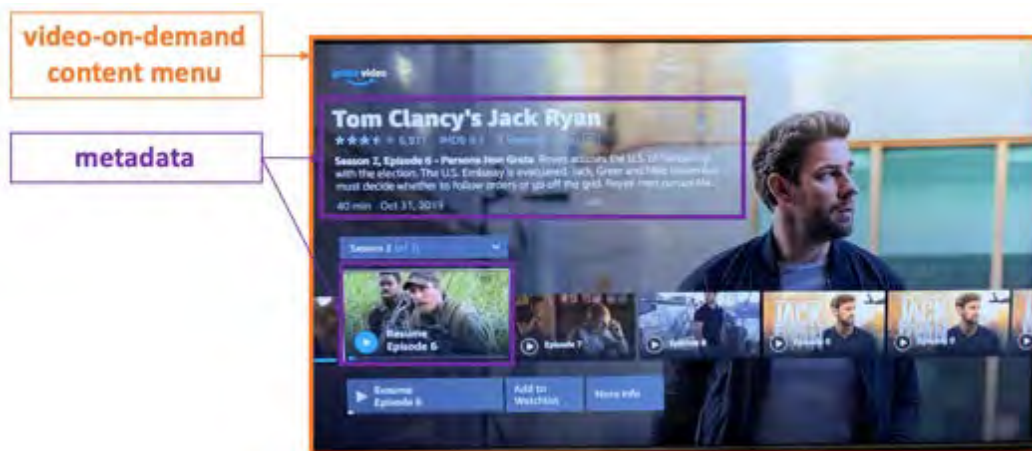
84. The Accused '750 Patent Products "receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu." For example, the various Amazon services that make up the web-based content management system and the video-on-demand application server system are shown below, including Amazon S3 storage used for storage of the video content upon upload of the content, and AWS Elemental / AWS Elemental MediaConvert / AWS Elemental MediaPackage used for the encoding/transcoding/packaging of the content and metadata.



85. The Accused '750 Patent Products “receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu.” The metadata associated with the first video content is used to generate a video-on-demand content menu for users. For example, the metadata and video content for “Manchester By The Sea” (shown being entered on the left image) is used to generate a video-on-demand content menu on Prime Video. The content menu for Prime Video is a video-on-demand content menu because the content can be viewed on demand.



86. As another example, the metadata for Season 2, Episode 6 of “Tom Clancy’s Jack Ryan” is used to generate a video-on-demand content menu.



87. In the Accused '750 Patent Products, “the first video-on-demand application-readable metadata” has: “(1) first title information comprising a first title, and (2) first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a video-on-demand application, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same

hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu.”

The **metadata** includes **title information** and **category information**. In Prime Video, this category information may be displayed as subcategory information.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 8 (last visited 5/4/2020)

The **category information** is used for placement of the first title information in the **video-on-demand content menu**.

**Selecting a Category**  
The category describes what kind of title you're publishing and helps customers find content they're interested in.

Category Name	Description
Books	Professionally produced content featuring a complete work of fiction or non-fiction.
TV Shows	Professionally produced content featuring a series of episodes, typically airing on TV.
Short Films	Professionally produced content featuring a short film, typically airing on TV.
Trailers	Content which is used to promote a movie or television show, typically airing on TV.
Documentaries	Content which is used to promote a movie or television show, typically airing on TV.
Comics and Animation	Content which is used to promote a movie or television show, typically airing on TV.
Interviews	Content which is used to promote a movie or television show, typically airing on TV.
Music Videos	Content which is used to promote a movie or television show, typically airing on TV.
Reporting and Journalism	Professionally produced content featuring a report, typically airing on TV.
Special Events	Content which is used to promote a movie or television show, typically airing on TV.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 9 (last visited 5/4/2020)

88. Genres selected by the content provider include both categories (called “genres” in Prime Video) and subcategories (called “subgenres” in Prime Video).

- Enter your **Title Name**. Avoid using HTML, all caps, ellipses, and special characters.
- Enter your **Synopsis**. Avoid using HTML, all caps, ellipses, special characters (emoji or “enter key”) and delivery type (4K, HD, etc.).
- Choose up to three suggested **Genres**. For a complete list, see [Genre Definitions](#).
- Enter at least one **Country of Origin** where the production company responsible for this work was established.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 11 (last visited 5/4/2020)

**Genres**

A list of genres that are available for use in each marketplace can be downloaded below. Note that genres submitted in metadata must match these lists exactly, including spaces. For example, for the US genres, **Action-Disaster** is valid. **Action-Disaster** is invalid (no spaces around the hyphen). Use this documentation to help appropriately classify content submitted to Prime Video.

Specifically in Global, the **Genre Code** must be specified in the **@id** attribute of the **Genre**. Three unique genres total are acceptable per title. Prime Video consolidates all genres provided for a given title and de-duplicates them to determine the total number of unique genres provided. Therefore, genres may be provided in only one **LocalizedInfo** section or may be included in all of the **LocalizedInfo** sections, so as long as a maximum of three are provided. For example, if a title is categorized with **av\_subgenre\_action\_comedy** and **av\_subgenre\_action\_romance**, these genres could be included in any or all of the **LocalizedInfo** sections of the MEC. However, if the en-US section included **av\_subgenre\_action\_comedy** and **av\_subgenre\_action\_romance** while the fr-FR section of the same film included **av\_subgenre\_action\_historical** and **av\_subgenre\_action\_epic**, the MEC would fail encoding because four unique genres are provided for the title.

[Download Prime Video Genres Excel workbook](https://videocentral.amazon.com/home/help?topicId=GGUTLFAV9WXZQD8C&ref=avif_sui_GGUTLFAV9WXZQD8C)  
[https://videocentral.amazon.com/home/help?topicId=GGUTLFAV9WXZQD8C&ref=avif\\_sui\\_GGUTLFAV9WXZQD8C](https://videocentral.amazon.com/home/help?topicId=GGUTLFAV9WXZQD8C&ref=avif_sui_GGUTLFAV9WXZQD8C) last visited 5/4/2020



89. Categories and subcategories are associated with title information. For example, one category available in Prime Video is the “Action and adventure” category. Within this genre are the subcategories “Action and adventure movies” and “Action and adventure TV.” Both a category (Action and adventure) and subcategory (Action and adventure TV) are used to specify a location of the TV show “Tom Clancy’s Jack Ryan,” the listing for which is itself a further subcategory.



90. When the subcategory “Tom Clancy’s Jack Ryan” is selected, the subscriber may select “Seasons & Episodes” to view title information for video content, such as “Season 2, Episode 6 – Persona Non Grata.”



91. In the Accused '750 Patent Products, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu. The title information, category information, and subcategory information was all uploaded during the PVD process and is all part of the metadata. For example, the content provider specifies at least whether videos are standalone (Movies), or Episodic (TV Shows), and the title information, synopsis, and genre.



92. In the Accused '750 Patent Products, “the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format. For example, the first video content (the “mezzanine file”) was uploaded to the Prime Video Direct system by a content provider device associated with a first video content provider via the internet in a digital format.” Digital video formats include codecs such as H.264 and MPEG-2 and include file formats such as .mp4 and .mpg.

## Video Assets Tab

PVD supports video resolutions up to 1920x1080p and we automatically adjust delivery streams to match the customer's device and connection.

### Instructions

1. Click browse to upload your **mezzanine** (video/audio) file. See [Mezzanine Requirements](#) for more information.
2. Click browse to upload your **captions** file. See [Captions Requirements](#) for more information.
3. Click browse to upload a **trailer**.
4. Click **Save** once you've uploaded the required video assets.

**NOTE:** If you save your media assets on Amazon Simple Storage Service (S3), you can use your S3 account to add files for publishing to Prime Video Direct.

### Codecs and File formats

- Supported Containers: .mp4, .m2t, .ts
- Note: H.264 video in .m2t wrappers aren't supported.
- Profile: High
- Recommended Bitrate for HD Resolution: 40 Mbps
- Recommended Bitrate for SD Resolution: 15 Mbps
- Key Frame Interval: 1 second (or less)
- Audio Format: AC-3 or AAC

### Codecs and File formats

- Supported Containers: .mp4, .m2t, .m2ts, .ts
- Profile: Main
- Recommended Bitrate for HD Resolution: 40 Mbps
- Recommended Bitrate for SD Resolution: 15 Mbps
- Key Frame Interval: 1 second (or less, 1-frame less preferred)
- Audio Format: PCM or MP3 Layer 3

14

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 14 (last visited 5/4/2020)

prime video direct

<https://videohelp.amazon.com/home/help?topic=GS2021298&last-visited=5/22/2020>



## Mezzanine (Video/Audio)

A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities.

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 23 (last visited 5/4/2020)

nstr

### Video Assets Tab

PVD supports video resolutions up to 1920x1080p and we automatically adjust delivery streams to match the customer's device and connection.

**Mezzanine file** (1)

**Captions** (2)

**Trailer (Optional)** (3)

**Save** (4)

**Instructions**

1. Click browse to upload your **mezzanine** (video/audio) file. See [Mezzanine Requirements](#) for more information.
2. Click browse to upload your **captions** file. See [Captions Requirements](#) for more information.
3. Click browse to upload a **trailer**.
4. Click **Save** once you've uploaded the required video assets.

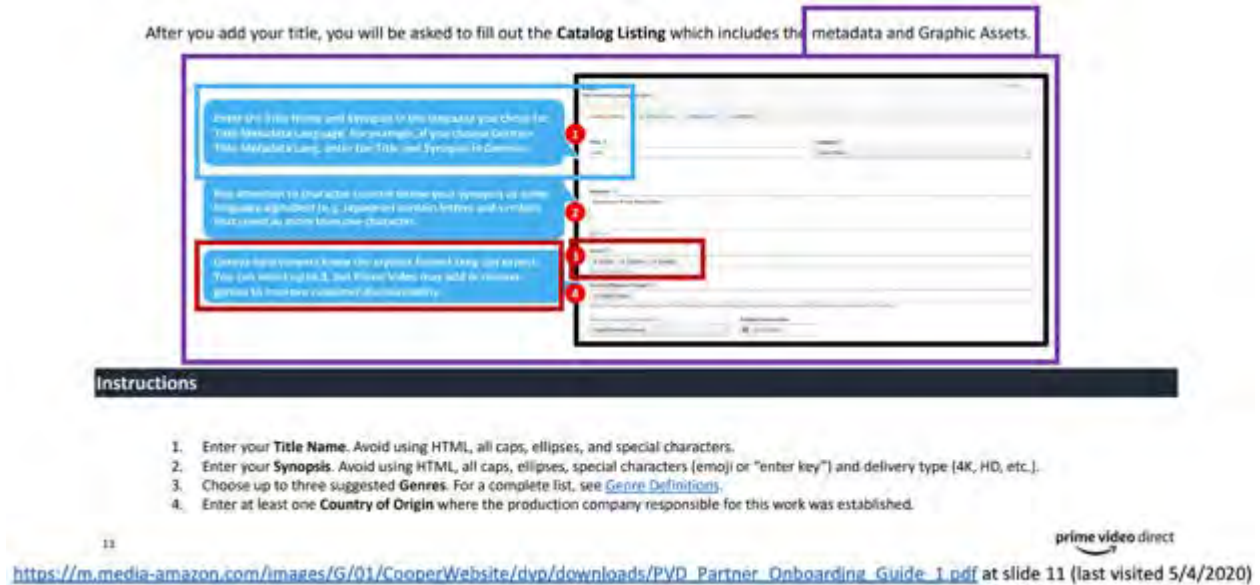
**NOTE:** If you save your media assets on Amazon Simple Storage Service (S3), you can use your S3 account to add files for publishing to Prime Video Direct.

prime video direct

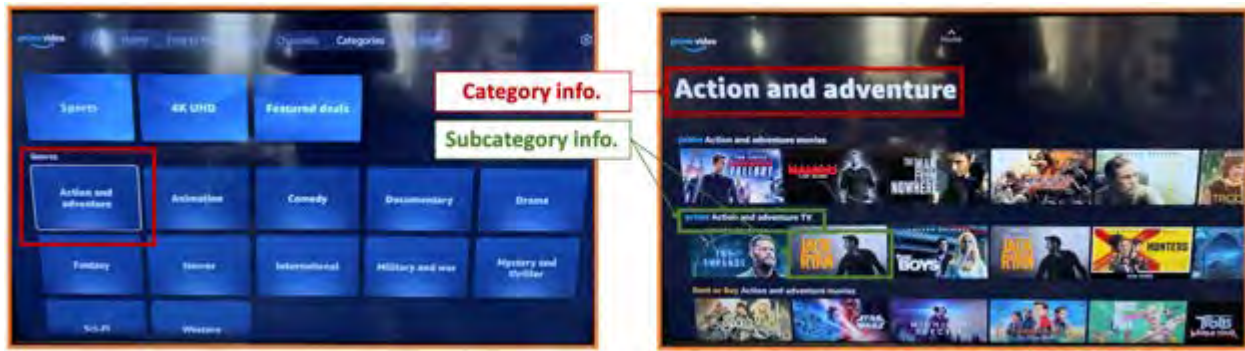
[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

93. “[T]he associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information” was also uploaded. The category and subcategory information is designated by the video content provider. The category information and first subcategory information is associated with the first title information.





94. In the Accused '750 Patent Products, "the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information, designated by the first video content provider, to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu using first category information and first subcategory information associated with the first title information." The category information and subcategory information is used to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu. For example, both a category (Action and adventure) and a subcategory (Action and adventure TV) are used to specify a location of the TV Show "Tom Clancy's Jack Ryan." The listing for "Tom Clancy's Jack Ryan" is itself a further subcategory. These categories and subcategories are designated by the first video content provider in PVD.

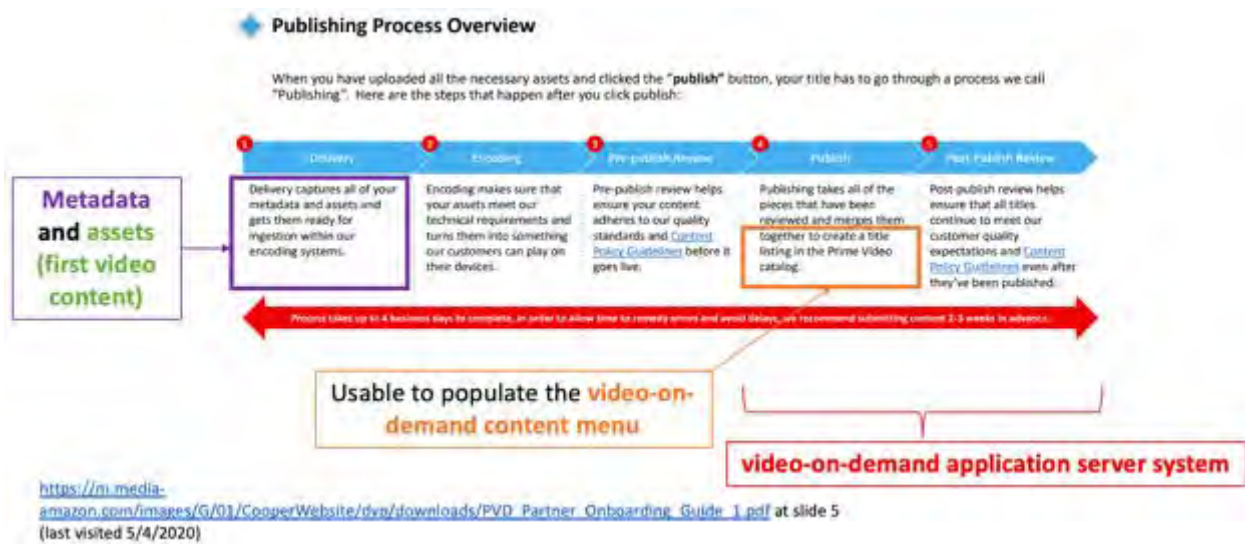


95. The category information and subcategory information is used to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu. For example, both the category (Action and adventure) and subcategory (Action and adventure TV) are used to specify a location of the TV Show “Tom Clancy’s Jack Ryan.” When the subcategory “Tom Clancy’s Jack Ryan” is selected, the subscriber may select “Seasons & Episodes” to view title information for video content, such as “Season 2, Episode 6 – Persona Non Grata.”



96. In the Accused ’750 Patent Products, the video-on-demand application server system [generates] video-on-demand content menu information data, including at least the first video-on-demand application-readable metadata associated with the first video content and

usable to populate the video-on-demand content menu. For example, the video-on-demand application server system “takes all of the pieces” and “merges them together” to generate a title listing (video-on-demand content menu information data), which includes metadata associated with the first video content, which is usable to populate the Prime Video catalog (the video-on-demand content menu).



## Getting Started – 3 “Must Have” Assets and Top Tips

There are 3 major assets you need to have before getting started:

	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>Watermark/Logo/URL</li> <li>Mismatched video and audio durations</li> <li>Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>Out of sync/incoherent</li> <li>Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>Padded images/Stretched/narrowed images</li> <li>Title name not displayed</li> <li>Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose “constant frame rate” instead of “variable frame rate.”</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).



[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

### Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
Title Name	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
Category	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
Title Metadata Language	This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
Synopsis	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
Genre	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
Country of Origin	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
Rating	Regulatory or organizations in each marketplace create ratings criteria for movies and TV shows, however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
Cast and Crew Information	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
Mezzanine File	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
Captions File	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
Key Art	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
Availability Options	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

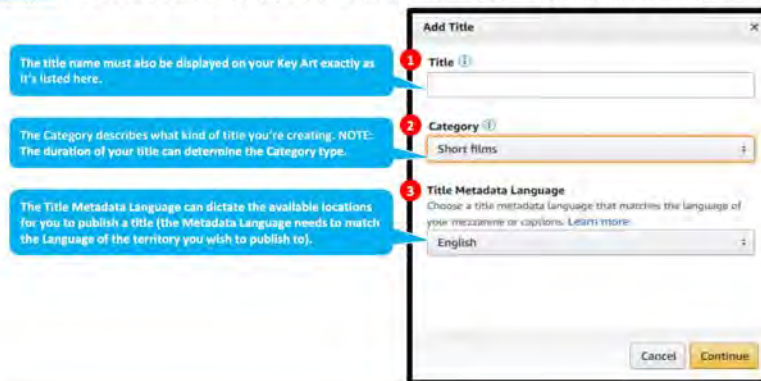
4

prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

### Creating a Title Entry – Part 2

When you click "Add Title," the **Category** and **Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing



The screenshot shows the 'Add Title' form with three callouts:

- 1** Title: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2** Category: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3** Title Metadata Language: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the language of the territory you wish to publish to).

The form fields are: Title (text input), Category (dropdown menu showing 'Short Films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

#### Instructions

1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

8

prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

97. The various Amazon services that make up the web-based content management system and the video-on-demand application server system are shown below.






<https://s3.amazonaws.com/solutions-reference/video-on-demand-on-aws/latest/video-on-demand-on-aws.pdf> at page 5  
(last visited 6/10/2020)

98. In the Accused '750 Patent Products, the video-on-demand application server system [sends] to a respective set top box operatively connected to respective television equipment of a respective television service subscriber the generated video-on-demand content menu information data. For example, the Fire TV Cube is a set top box that is connected to the television equipment of a subscriber to Amazon Prime Video. The Prime Video video-on-demand application server system sends the generated video-on-demand content menu information data to the set top box.



<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07KGV6D6> last visited 5/4/2020



**fire tv cube**  
Control your TV hands-free

NETFLIX prime video YouTube Disney+

All-new Fire TV Cube, hands-free with Alexa built in, 4K Ultra HD, streaming media player, released 2019

by Amazon

★★★★★ (3,489 ratings) | 1000+ answered questions

Amazon's Choice for "fire tv cube"

Price: **\$119.99 & FREE Shipping** [Details](#)

Get a 1-year complimentary subscription to Food Network Kitchen on us. Terms & Condition apply. [Learn more](#)

**In Stock.**

Get it as soon as Thursday, May 7 - Friday, May 8 if you choose **Two-Day Shipping** at checkout. [Details](#)

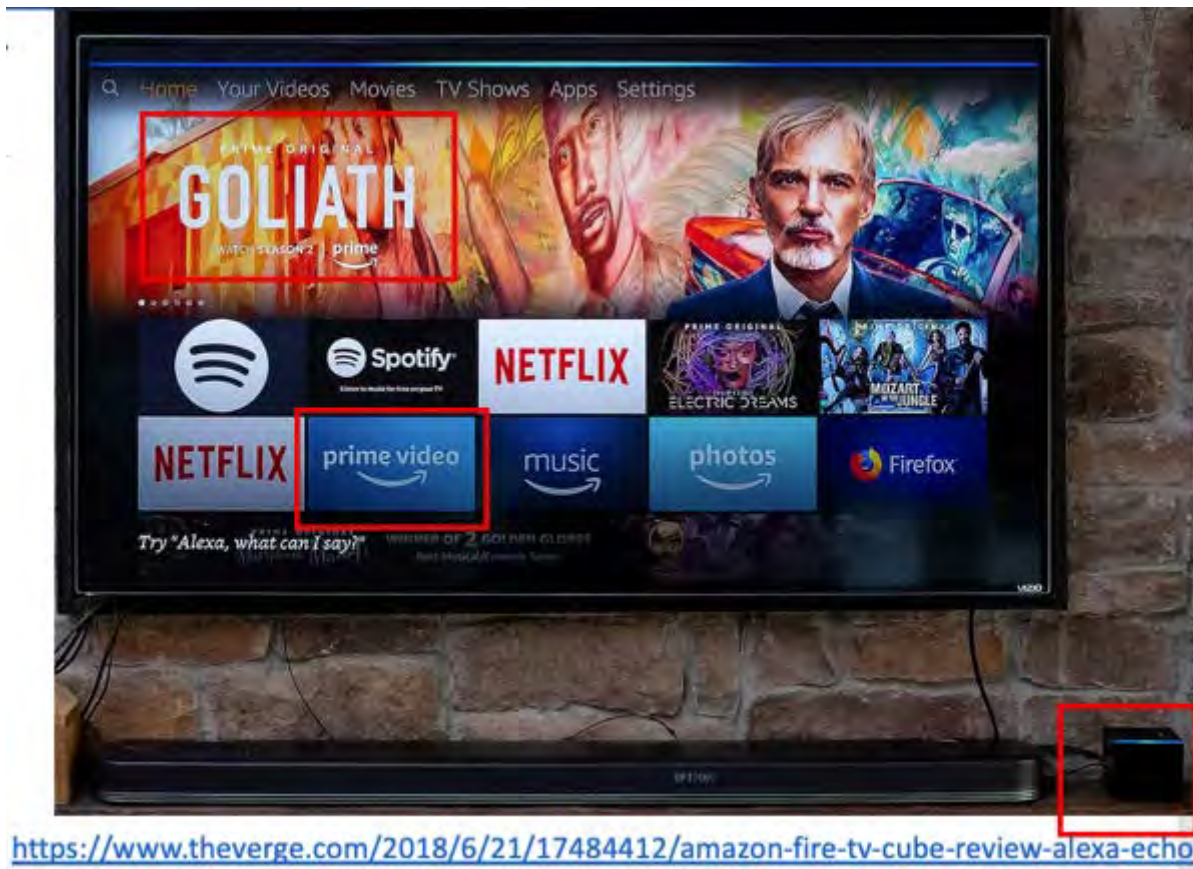
Ships from and sold by Amazon.com Services LLC.

**Configuration: Fire TV Cube**

- The fastest, most powerful fire TV.
- From across the room, just ask Alexa to turn on the TV, dim the lights, and play your show.
- Control compatible soundbar and A/V receiver, and change live cable or satellite channels with your voice.
- With the built-in speaker, ask Alexa to check the weather, turn off the lights, and more - even when the TV is off.
- Instant access to 4K ultra HD content, plus support for Dolby Vision and HDR, HDR10+.
- Watch favorites from Netflix, YouTube, Prime Video, Disney+, Apple TV, HBO, and more. Stream for free with Pluto, IMDb TV, and more.
- **Use the power and volume buttons on your Alexa voice remote to control your TV without making a sound.**
- Use the power and volume buttons on your Alexa voice remote to control your TV without making a sound.

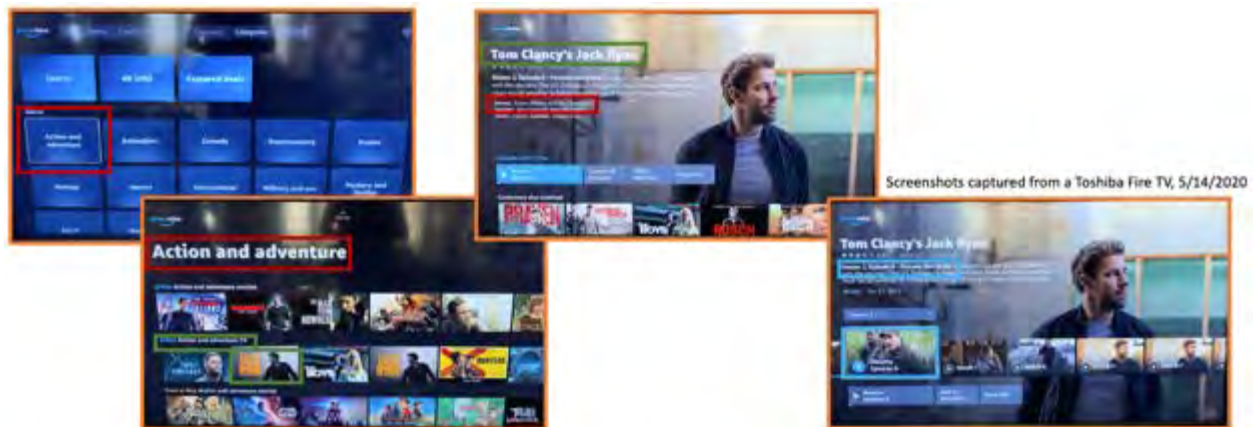
~ See more

<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07KGV6D6>  
last visited 5/4/2020

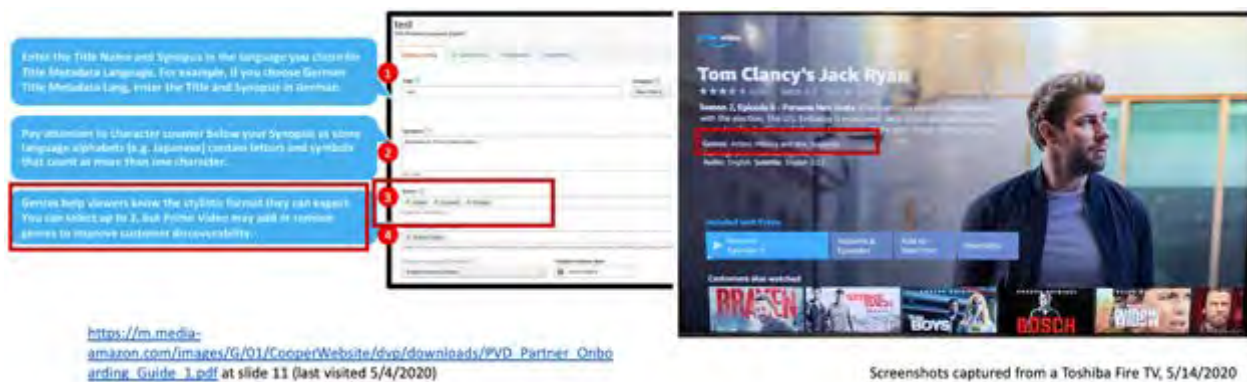


99. In the Accused '750 Patent Products, the respective set-top box generates, using the video-on-demand content menu information data, the video-on-demand content menu for navigating through titles, including the first title of the first video content, by hierarchically-arranged category information and subcategory information, including at least the first category information and the first subcategory information in order to locate a respective one of the titles whose associated video content is desired for viewing on respective television equipment. The set-top box generates the video-on-demand content menu using the video-on-demand content menu information data. As shown above, the categories and subcategories “Action and adventure,” “Action and adventure TV,” and “Tom Clancy’s Jack Ryan” are hierarchically

arranged, allowing a subscriber to locate a title, such as “Season 2, Episode 6 – Persona Non Grata.”



100. The video-on-demand content menu of Prime Video lists the titles using the category and subcategory information that was designated by the content provider. For example, Tom Clancy’s Jack Ryan is part of the Action, Military and War, and Suspense genres, which were designated by the content provider in the metadata for the respective video content as part of the Prime Video Direct process.





101. In the Accused '750 Patent Products, the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content. The video-on-demand content menu lists titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers. This information was designated in the uploaded first video-on-demand application-readable metadata for the respective video content.



102. In the Accused '750 Patent Products, the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content, wherein a plurality of different display templates, including a first display template, are accessible. A plurality of different display templates is accessible. For example, a template showing a list of titles available in several subcategories of the "Action and adventure"

category is shown on the left. This is a template because a list of titles available in several subcategories of the “Drama” category are shown on the right, in the same format.



103. A second template of the plurality of different display templates for selecting an episode of Tom Clancy’s Jack Ryan is shown below, to the left. This template is shown during the selection of an episode of a TV series. This is a template because a list of episodes in the TV show “The Expanse” are shown on the right, in the same format.



104. In the Accused ’750 Patent Products the video-on-demand application server system from the respective set top box, receives an electronic request for the first video content associated with the selected first title for display on the television equipment of the television

service subscriber in response to the respective television service subscriber selecting, via a television control unit in communication with the respective set top box, the respective title associated with the video content from the hierarchically-arranged category information and subcategory information of the video-on-demand content menu. The Prime Video server system receives an electronic request for the video content in response to a subscriber selecting the title from the video-on-demand content menu. For example, a user may use the Fire TV remote control to select a title on the Fire TV set top box, which will in turn send a request for the title to the Prime Video server system. Here, a subscriber would select “Watch Now” or “Resume” on their remote control to play Season 2, Episode 6 – Persona Non Grata of “Tom Clancy’s Jack Ryan.”



105. In the Accused '750 Patent Products the video-on-demand application server system, [causes] to be transmitted to the respective set top box from a video server, the selected first video content for display on the respective TV equipment. For example, Amazon Prime Video will transmit the first video content for display on the TV equipment. Here, Season 2, Episode 6 of “Tom Clancy’s Jack Ryan” is shown playing on a subscriber’s TV.



Screenshots captured from a Toshiba Fire TV, 5/14/2020

106. Amazon has infringed, and continues to infringe, infringed literally and/or under the doctrine of equivalents at least claim 1 of the '750 Patent in the United States, by making, using, offering for sale, selling and/or importing the Accused '750 Patent Products in violation of 35 U.S.C. § 271(a).

107. Amazon also has infringed, and continues to infringe, at least claim 1 of the '750 Patent by actively inducing others to use, offer for sale, and sell the Accused '750 Patent Products. Amazon's users, customers, agents, and/or other third parties who use those products and/or Amazon's VOD service in accordance with Amazon's instructions infringe at least claim 1 of the '750 Patent, in violation of 35 U.S.C. § 271(a). Because Amazon intentionally instructs its customers to infringe through training videos, demonstrations, online instructions and user guides, such as those located at: <https://videocentral.amazon.com/home/help>; [https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.p](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.p)



df; <https://www.amazon.com/gp/help/customer/display.html/>; <https://www.primevideo.com/help>; <https://videodirect.amazon.com/home/landing>; and related domains and subdomains, Amazon is liable for infringement of the '750 Patent under 35 U.S.C. § 271(b).

108. Amazon also has infringed, and continues to infringe, at least claim 1 of the '750 Patent by offering to commercially distribute, commercially distributing or importing the Accused '750 Patent Products, which are used in practicing the processes or using the systems of the '750 Patent, and constitute a material part of the invention. For example, Amazon provides apps to users, who then install those apps on their ICDDs such as media player/set-top boxes. A media player/set-top box that has been configured to use Amazon's apps to access Amazon's VOD platform infringes at least claim 1 of the '750 Patent, in violation of 35 U.S.C. § 271(a). Amazon knows portions of the Accused '750 Patent Products to be especially made or especially adapted for use in infringement of the '750 Patent, and not to be staple articles, and not to be commodities of commerce suitable for substantial noninfringing use. Amazon is thereby liable for contributory infringement of the '750 Patent under U.S.C. § 271(c).

109. Amazon is on notice of its infringement of the '750 Patent by no later than the filing and service of this Complaint. Amazon also received notice of its infringement of the '750 Patent on October 5, 2020, when BBiTV served Amazon with an infringement notice letter. By the time of trial, Amazon will have known and intended (since receiving such notice) that its continued actions would actively induce the infringement of at least claim 1 of the '750 Patent.

110. Upon information and belief, Amazon may have infringed and continues to infringe the '750 Patent through other software and devices utilizing the same or reasonably similar functionality, including other versions of the Accused '750 Patent Products.

111. Amazon's acts of direct and indirect infringement have caused and continue to cause damage to BBiTV. BBiTV is, therefore, entitled to recover damages sustained as a result of Amazon's wrongful acts in an amount that is proven at trial.

**COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 10,536,751**

112. The allegations of paragraphs 1-111 of this Complaint are incorporated by reference as though fully set forth herein.

113. The '751 Patent, titled "Video-on-demand content delivery system for providing video-on-demand services to TV services subscribers" issued on January 14, 2020. A copy of the '751 Patent is attached as **Exhibit D**.

114. Pursuant to 35 U.S.C. § 282, the '751 Patent is presumed valid.

115. Upon information and belief, Amazon makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that provide Amazon's subscribers with video-on-demand services using ICDDs (collectively the "Accused '751 Patent Products").

116. Upon information and belief, the Accused '751 Patent Products infringe literally and/or under the doctrine of equivalents at least claim 1 of the '751 Patent in the exemplary manner described below.

117. Exemplary claim 1 of the '751 patent claims:

A video-on-demand application server system comprising one or more computers and computer-readable memory operatively connected to the one or more computers of the video-on-demand application server system, and programmed to perform at least the following steps:

(a) receiving, by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu,

wherein the first video-on-demand application-readable metadata comprises:

- (1) first title information comprising a first title, and
- (2) first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a video-on-demand application, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu;

wherein the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information, designated by the first video content provider, to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu using first category information and first subcategory information associated with the first title information, and further including first time information for availability of the first video content for scheduling of viewing of the first video content through the video-on-demand application;

- (b) generating, by the video-on-demand application server system, video-on-demand content menu information data, including at least the first video-on-demand application-readable metadata associated with the first video content and usable to populate the video-on-demand content menu;
- (c) sending, from the video-on-demand application server system to a respective set top box operatively connected to respective television equipment of a respective television service subscriber the generated video-on-demand content menu information data;
- (d) generating, at the respective set-top box, using the video-on-demand content menu information data, the video-on-demand content menu for navigating through titles, including the first title of the first video content, by hierarchically-arranged category information and subcategory information, including at least the first category information and the first subcategory information in order to locate a respective one of the titles whose associated video content is desired for viewing on respective television equipment,

wherein the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was

designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content, wherein a plurality of different display templates, including a first display template, are accessible,

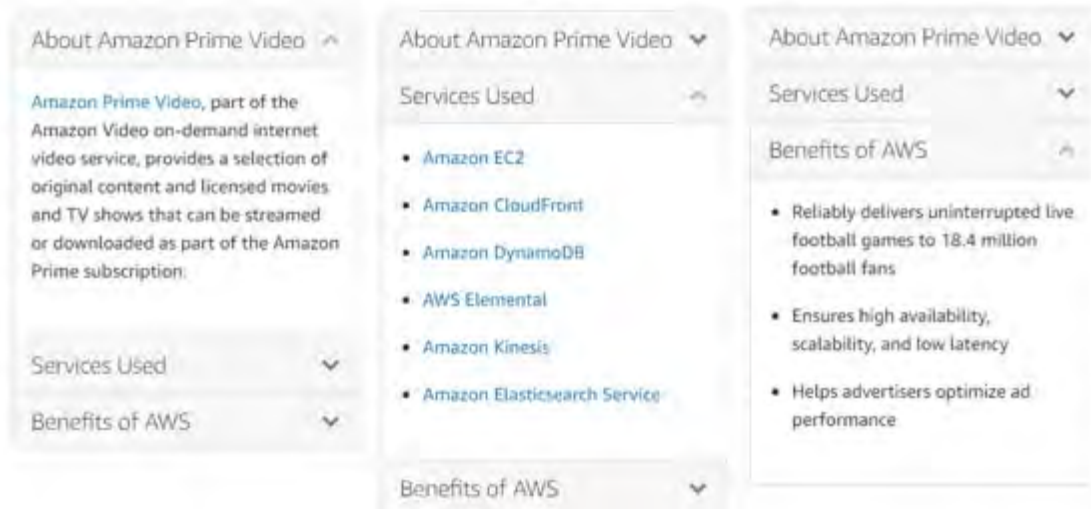
wherein which titles are available for selection from the video-on-demand content menu, at a respective time, is based at least in part on respective time information during which the respective video content associated with the respective time information can be accessed;

(e) receiving, by the video-on-demand application server system from the respective set top box, an electronic request for the first video content associated with the selected first title for display on the television equipment of the television service subscriber in response to the respective television service subscriber selecting, via a television control unit in communication with the respective set top box, the respective title associated with the video content from the hierarchically-arranged category information and subcategory information of the video-on-demand content menu;

(f) causing, by the video-on-demand application server system, to be transmitted to the respective set top box from a video server, the selected first video content for display on the respective TV equipment.

118. Amazon provides a video-on-demand application server system with a web-based content management system that provides content providers with the ability to upload content and metadata, and users with the ability to view electronic media content on a set top box (e.g., Amazon Fire TV Cube, Apple TV, Roku, etc.) via an Internet connection. Amazon's video-on-demand application server system is built on Amazon Web Services (AWS), which includes several types of services. These services work to provide users with the ability to view content streamed to their devices through the Amazon Prime Video platform.





119. Amazon allows content providers to upload content to the Amazon Prime Video streaming service through "Prime Video Direct," which includes a web-based content management system.

## Overview

Welcome to the help center for Prime Video Direct. Here we provide step-by-step instructions and answers to frequently asked questions. Whether you're new to Prime Video Direct or just need a refresher on how to change your account or update a published video, you'll find the answers here.

Self-publishing via Prime Video Direct helps to provide free exposure and international distribution by giving you control for your titles — from distribution to presentation and marketing to millions of Amazon customers.

Our self-serve approach for all high-quality content providers helps to provide the same flexible distribution options and delivery quality available to major motion picture and television studios.

As always, Amazon customers are our number one priority. We strive to ensure that all titles in our catalog to stream, purchase, or rent are held to a high standard and meets customer expectations on quality. Our review processes are designed so that your titles adhere to our customer quality standards and [Content Policy Guidelines](#) before and after it goes live.

### PARTNER ONBOARDING GUIDE

Start with our [Partner Onboarding Guide](#) for a step-by-step walkthrough of the Prime Video Direct publishing process.

<https://videodirect.amazon.com/home/help?topicId=G202013390> last visited 5/4/2020

## Prime Video Direct

Prime Video Direct is our self-publishing platform that helps content creators and visual storytellers reach millions of Amazon customers across hundreds of devices with similar distribution options and delivery quality available to major motion picture and television studios.

For each title, content partners can choose to earn royalties based on hours streamed by Prime customers and a revenue share for rentals or purchases. Content partners can make titles available in territories around the globe on all supported devices—Fire TV, phones, tablets, game consoles, Smart TVs—and on the web.

As a self-service platform, everything needed to deliver content to Prime Video is included on the [Prime Video Direct website](https://videocentral.amazon.com/home/help?topicId=GWKF2YM3PC5WLAZ8).

<https://videocentral.amazon.com/home/help?topicId=GWKF2YM3PC5WLAZ8>

120. Content from Prime Video is made available to stream to set top boxes (several examples shown below) to users with an Amazon Prime account.



<https://www.amazon.com/Amazon-Video/b/?node=2858778011> last visited 5/4/2020.



<https://www.primetvvideo.com/> last visited 5/4/2020



Compare Fire TV streaming media players

	Fire TV Cube	Fire TV Stick 4K	Fire TV Stick
Price	From \$119.99	From \$59.99	From \$39.99
Settings	4K HDR, Dolby Vision, Dolby Atmos	4K HDR, Dolby Vision, Dolby Atmos	1080p, Dolby Vision, Dolby Atmos
Picture quality	4K HDR, Dolby Vision, Dolby Atmos	4K HDR, Dolby Vision, Dolby Atmos	1080p, Dolby Vision, Dolby Atmos

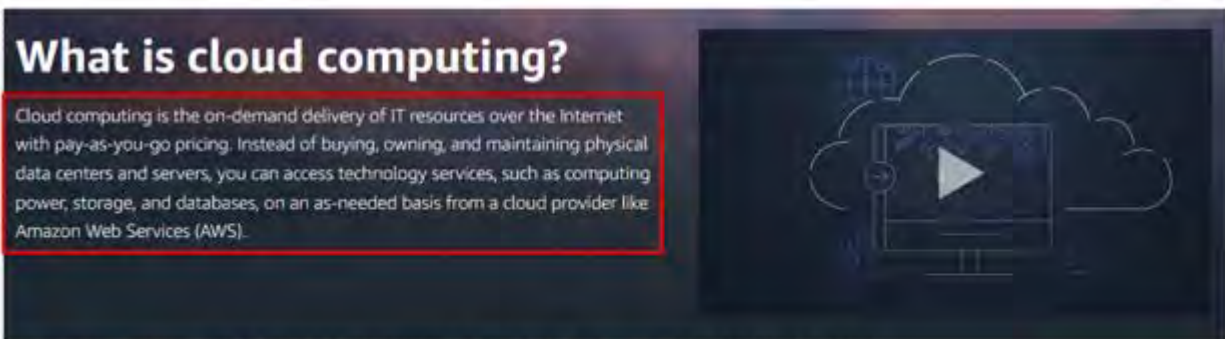
[www.amazon.com/b?node=8521791011](https://www.amazon.com/b?node=8521791011) last visited 5/4/2020

<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07XGV8D6> last visited 5/4/2020



APPLE TV APP STORE (last visited Apr. 20, 2020)

121. The Accused '751 Patent Products include “[a] video-on-demand application server system comprising one or more computers and computer-readable memory operatively connected to the one or more computers of the video-on-demand application server system.” For example, Amazon Prime Video runs on AWS as the underlying technology for all its services and AWS is a cloud provider which provides computers and computer-readable memory operatively connected to the computers.



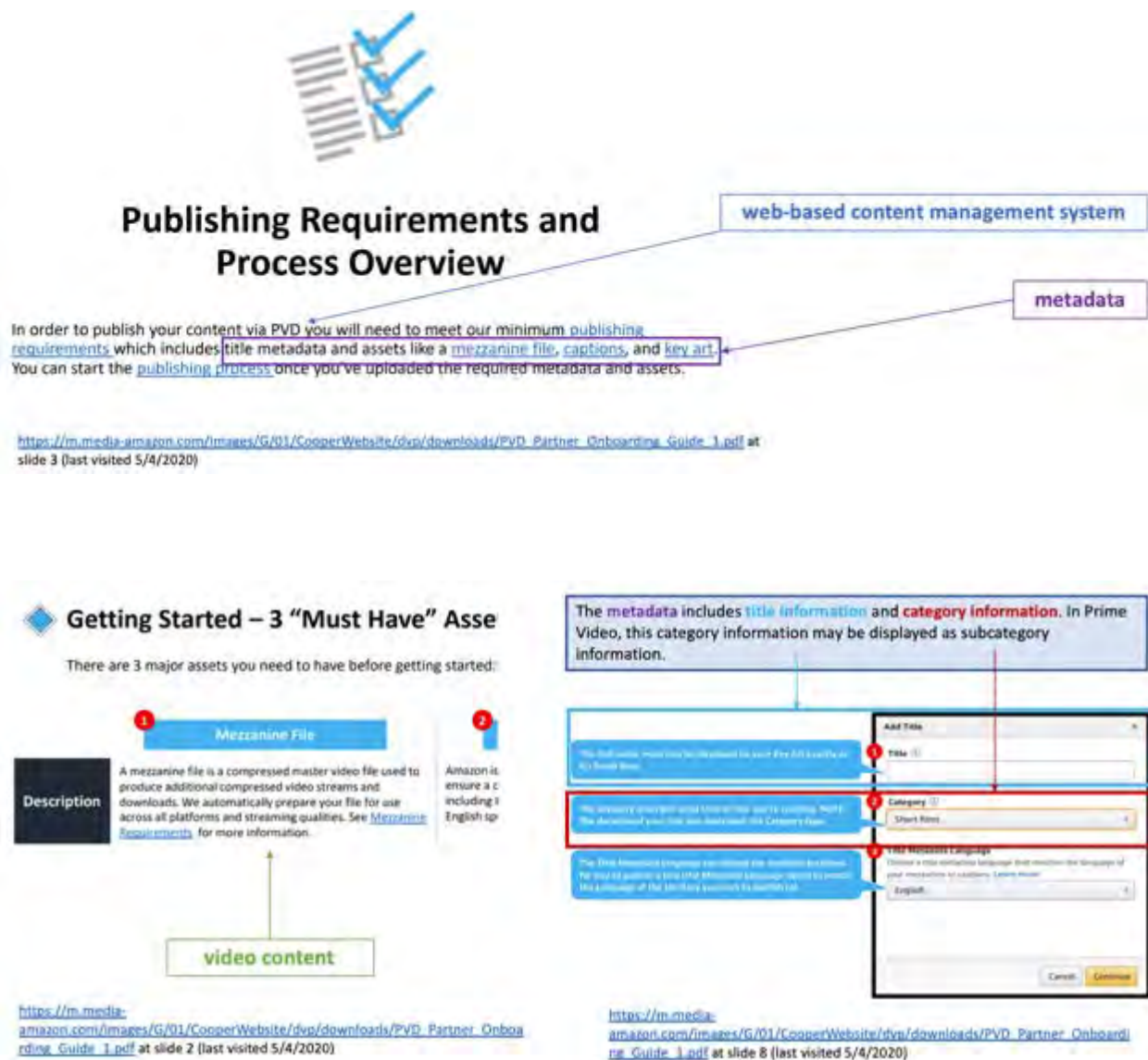
[https://aws.amazon.com/what-is-cloud-computing/?nc2=h\\_q\\_l\\_e\\_int\\_cc](https://aws.amazon.com/what-is-cloud-computing/?nc2=h_q_l_e_int_cc) last visited 5/4/2020

Amazon Prime Video uses the Amazon Web Service (AWS) Cloud as the underlying technology for all its services. "AWS gives us the flexibility, elasticity, and reliability we require," Winston says. Amazon Video also selected AWS Elemental, an Amazon Web Services company that combines deep video expertise with the power and scale of the cloud to empower media companies to deliver premium video experiences to consumers. "Amazon Video was already using AWS Elemental Cloud for live encoding and packaging for several live linear channels," Winston says. The organization began using AWS Elemental for live encoding, packaging, and ad insertion for Thursday Night Football.

<https://aws.amazon.com/solutions/case-studies/amazon-prime-video/> last visited 5/4/2020

122. The Accused '751 Patent Products “receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu.” For example, content providers use a web-based content management system called Prime Video Direct (“PVD”) to upload videos that are available on Prime Video and when content providers upload content to PVD they upload video content and metadata.



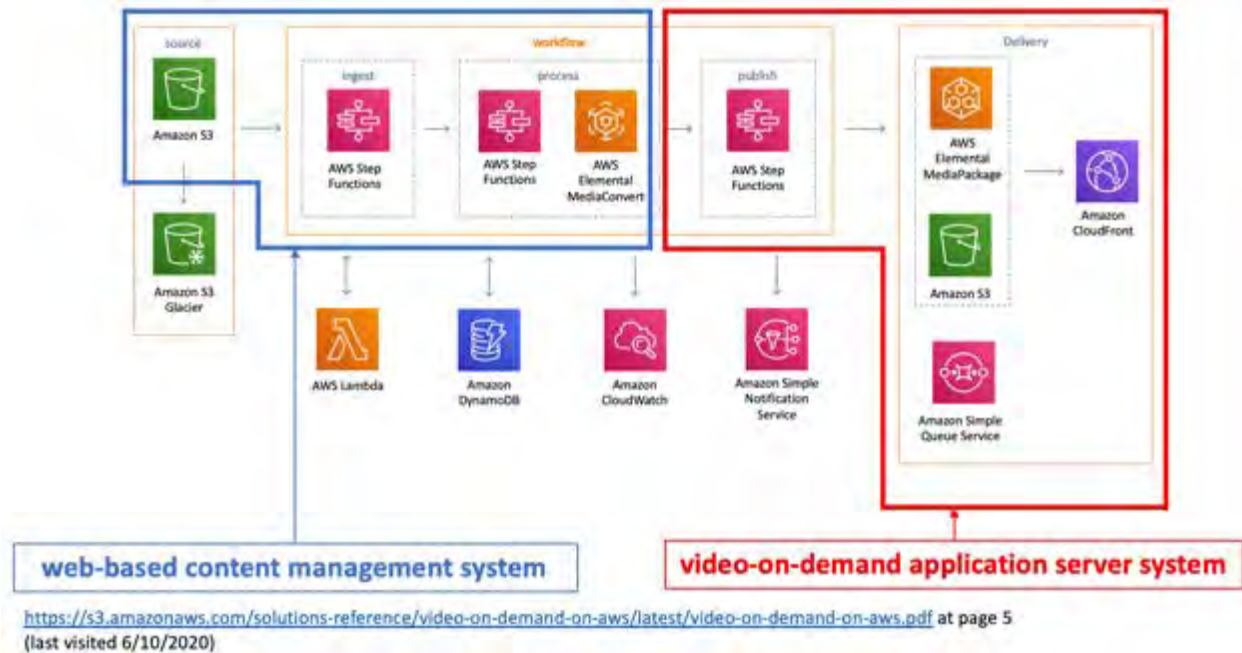


123. Prime Video (the video-on-demand application server system) receives the content that was uploaded through the PVD web-based content management system and creates a title listing in the Prime Video catalog, which title listing is part of a video-on-demand content menu.

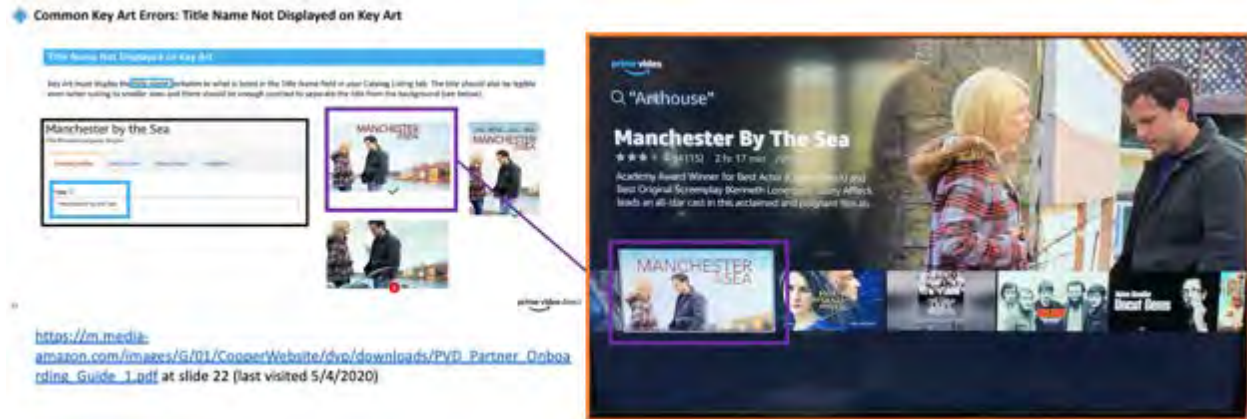




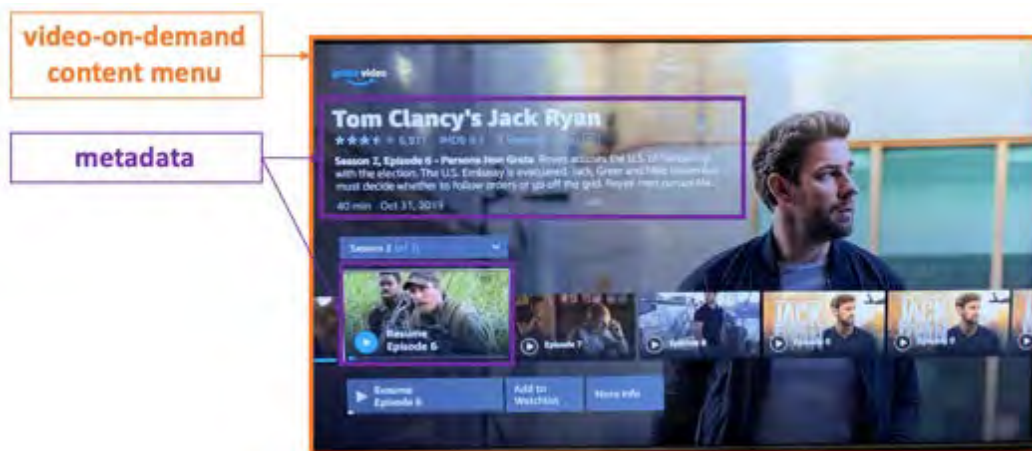
124. The Accused '751 Patent Products "receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu." For example, the various Amazon services that make up the web-based content management system and the video-on-demand application server system are shown below, including Amazon S3 storage used for storage of the video content upon upload of the content, and AWS Elemental / AWS Elemental MediaConvert / AWS Elemental MediaPackage used for the encoding/transcoding/packaging of the content and metadata.



125. The Accused '751 Patent Products “receiv[e], by the video-on-demand application server system from a Web-based content management system, first video-on-demand application-readable metadata associated with first video content and usable to generate a video-on-demand content menu.” The metadata associated with the first video content is used to generate a video-on-demand content menu for users. For example, the metadata and video content for “Manchester By The Sea” (shown being entered on the left image) is used to generate a video-on-demand content menu on Prime Video. The content menu for Prime Video is a video-on-demand content menu because the content can be viewed on demand.



126. As another example, the metadata for Season 2, Episode 6 of “Tom Clancy’s Jack Ryan” is used to generate a video-on-demand content menu.



127. In the Accused '751 Patent Products, “the first video-on-demand application-readable metadata” has: “(1) first title information comprising a first title, and (2) first content provider designated hierarchically arranged category information and subcategory information to specify a location of the first title information for the video content in a video-on-demand application, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same

hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu.”

The **metadata** includes **title information** and **category information**. In Prime Video, this category information may be displayed as subcategory information.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 8 (last visited 5/4/2020)

The **category information** is used for placement of the first title information in the **video-on-demand content menu**.

**Selecting a Category**  
The category describes what kind of title you're publishing and helps customers find content they're interested in.

Category Name	Description
Books	Professionally narrated audiobooks or e-books with a duration of 30 minutes or more.
TV Shows	Professionally produced content including a series with a regular schedule and typically more than 10 episodes.
Short Films	Professionally produced content consisting of a series with a duration of 10 minutes or less for streaming content or 10 minutes or less for theatrical release.
Film	Content which is used to describe a collection of video content (e.g. movies) that is not intended for sale or rental as a single unit.
Documentaries	Content which is used to describe a collection of video content (e.g. documentaries) that is not intended for sale or rental as a single unit.
Comics and Animation	Content which is used to describe a collection of video content (e.g. anime, manga, etc.) that is not intended for sale or rental as a single unit.
Interactive	Content which is used to describe a collection of video content (e.g. interactive content) that is not intended for sale or rental as a single unit.
Music Videos	Content which is used to describe a collection of video content (e.g. music videos) that is not intended for sale or rental as a single unit.
Reporting and Journalism	Professionally produced content including news, analysis, or opinion-based programming, such as news, sports, or entertainment.
Specialty Events	Content which is used to describe a collection of video content (e.g. live events) that is not intended for sale or rental as a single unit.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 9 (last visited 5/4/2020)

128. Genres selected by the content provider include both categories (called “genres” in Prime Video) and subcategories (called “subgenres” in Prime Video).

- Enter your **Title Name**. Avoid using HTML, all caps, ellipses, and special characters.
- Enter your **Synopsis**. Avoid using HTML, all caps, ellipses, special characters (emoji or “enter key”) and delivery type (4K, HD, etc.).
- Choose up to three suggested **Genres**. For a complete list, see [Genre Definitions](#).
- Enter at least one **Country of Origin** where the production company responsible for this work was established.

[https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/rtn/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 11 (last visited 5/4/2020)

**Genres**

A list of genres that are available for use in each marketplace can be downloaded below. Note that genres submitted in metadata must match these lists exactly, including spaces. For example, for the US genres, **Action-Disaster** is valid. **Action-Disaster** is invalid (no spaces around the hyphen). Use this documentation to help appropriately classify content submitted to Prime Video.

Specifically in Global, the **Genre Code** must be specified in the **@id** attribute of the **Genre**. Three unique genres total are acceptable per title. Prime Video consolidates all genres provided for a given title and de-duplicates them to determine the total number of unique genres provided. Therefore, genres may be provided in only one **LocalizedInfo** section or may be included in all of the **LocalizedInfo** sections, so as long as a maximum of three are provided. For example, if a title is categorized with **av\_subgenre\_action\_comedy** and **av\_subgenre\_action\_romance**, these genres could be included in any or all of the **LocalizedInfo** sections of the MEC. However, if the en-US section included **av\_subgenre\_action\_comedy** and **av\_subgenre\_action\_romance** while the fr-FR section of the same film included **av\_subgenre\_action\_historical** and **av\_subgenre\_action\_epic**, the MEC would fail encoding because four unique genres are provided for the title.

[Download Prime Video Genres Excel workbook](#)  
[https://videocentral.amazon.com/home/help?topicId=GGUTLFAV9WXZQDRC&ref=avif\\_sui\\_GGUTLFAV9WXZQDRC](https://videocentral.amazon.com/home/help?topicId=GGUTLFAV9WXZQDRC&ref=avif_sui_GGUTLFAV9WXZQDRC) last visited 5/4/2020



129. Categories and subcategories are associated with title information. For example, one category available in Prime Video is the “Action and adventure” category. Within this genre are the subcategories “Action and adventure movies” and “Action and adventure TV.” Both a category (Action and adventure) and subcategory (Action and adventure TV) are used to specify a location of the TV show “Tom Clancy’s Jack Ryan,” the listing for which is itself a further subcategory.



130. When the subcategory “Tom Clancy’s Jack Ryan” is selected, the subscriber may select “Seasons & Episodes” to view title information for video content, such as “Season 2, Episode 6 – Persona Non Grata.”



131. In the Accused '751 Patent Products, the first content provider designated category information and subcategory information associated with the first title information of the first video content using a same hierarchical structure of categories and subcategories as is to be used for placement of the first title information in the video-on-demand content menu. The title information, category information, and subcategory information was all uploaded during the PVD process and is all part of the metadata. For example, the content provider specifies at least whether videos are standalone (Movies), or Episodic (TV Shows), and the title information, synopsis, and genre.



132. In the Accused '751 Patent Products, “the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format.” For example, the first video content (the “mezzanine file”) was uploaded to the Prime Video Direct system by a content provider device associated with a first video content provider via the internet in a digital format. Digital video formats include codecs such as H.264 and MPEG-2 and include file formats such as .mp4 and .mpg.

## Video Assets Tab

PVD supports video resolutions up to 1920x1080p and we automatically adjust delivery streams to match the customer's device and connection.

### Instructions

1. Click browse to upload your **mezzanine** (video/audio) file. See [Mezzanine Requirements](#) for more information.
2. Click browse to upload your **captions** file. See [Captions Requirements](#) for more information.
3. Click browse to upload a **trailer**.
4. Click **Save** once you've uploaded the required video assets.

**NOTE:** If you save your media assets on Amazon Simple Storage Service (S3), you can use your S3 account to add files for publishing to Prime Video Direct.

### Codecs and File Formats

- Supported Containers: .mp4, .m2t, .ts
- Note: H.264 video in .m2t wrappers aren't supported.
- Profile: High
- Recommended Bitrate for HD Resolution: 40 Mbps
- Recommended Bitrate for SD Resolution: 15 Mbps
- Key Frame Interval: 1 second (or less)
- Audio Format: AC-3 or AAC

### Codecs and File formats

- Supported Containers: .mp4, .m2t, .ts
- Profile: Main
- Recommended Bitrate for HD Resolution: 40 Mbps
- Recommended Bitrate for SD Resolution: 15 Mbps
- Key Frame Interval: 1 second (or less, 1-frame less preferred)
- Audio Format: PCM or MP3 Layer 2

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[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 14 (last visited 5/4/2020)

prime video direct

<https://videodirect.amazon.com/home/help?topicId=G2021298&last%20visited%205%2F22%2F2020>



## Mezzanine (Video/Audio)

A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities.

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 23 (last visited 5/4/2020)

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### Video Assets Tab

PVD supports video resolutions up to 1920x1080p and we automatically adjust delivery streams to match the customer's device and connection.

**Mezzanine file** (1)

**Captions** (2)

**Trailer (Optional)** (3)

**4 Save**

**Instructions**

1. Click browse to upload your **mezzanine** (video/audio) file. See [Mezzanine Requirements](#) for more information.
2. Click browse to upload your **captions** file. See [Captions Requirements](#) for more information.
3. Click browse to upload a **trailer**.
4. Click **Save** once you've uploaded the required video assets.

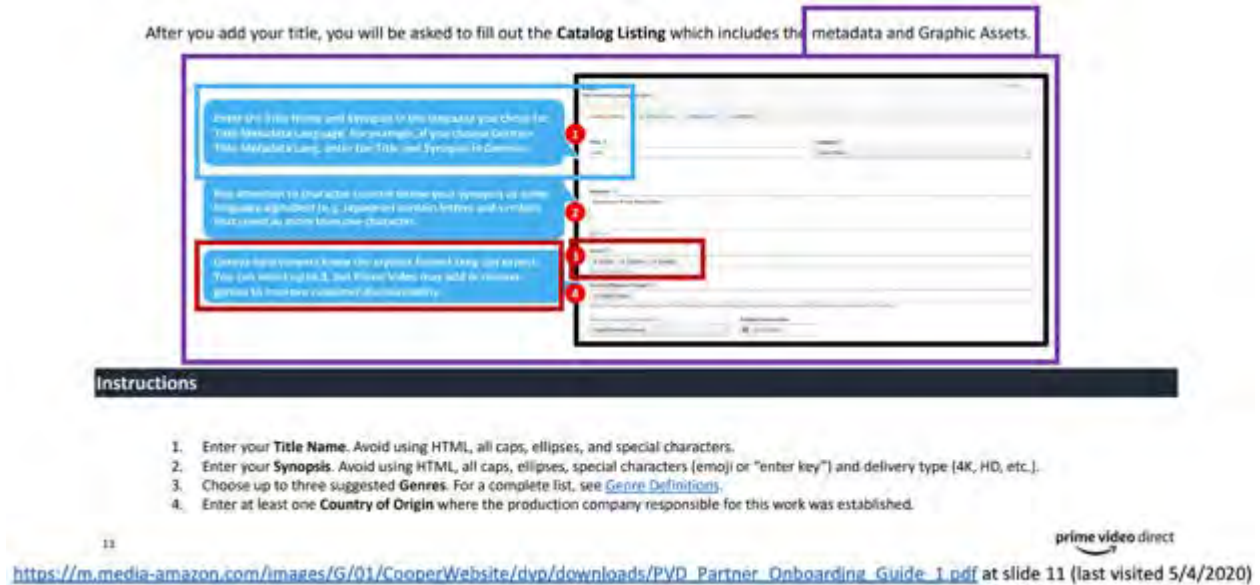
**NOTE:** If you save your media assets on Amazon Simple Storage Service (S3), you can use your S3 account to add files for publishing to Prime Video Direct.

prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

133. The associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information was also uploaded. The category and subcategory information is designated by the video content provider. The category information and first subcategory information is associated with the first title information.





134. In the Accused '751 Patent Products, “the received first video content was uploaded to the Web-based content management system by a content provider device associated with a first video content provider via the Internet in a digital video format, along with the associated first video-on-demand application-readable metadata including first title information, and first content provider designated hierarchically arranged category information and subcategory information, designated by the first video content provider, to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu using first category information and first subcategory information associated with the first title information, and further including first time information for availability of the first video content for scheduling of viewing of the first video content through the video-on-demand application.” The category information and subcategory information is used to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu. For example, both a category (Action and adventure) and a subcategory (Action and adventure TV) are used to specify a location of the TV Show “Tom Clancy’s Jack Ryan.” The listing for “Tom

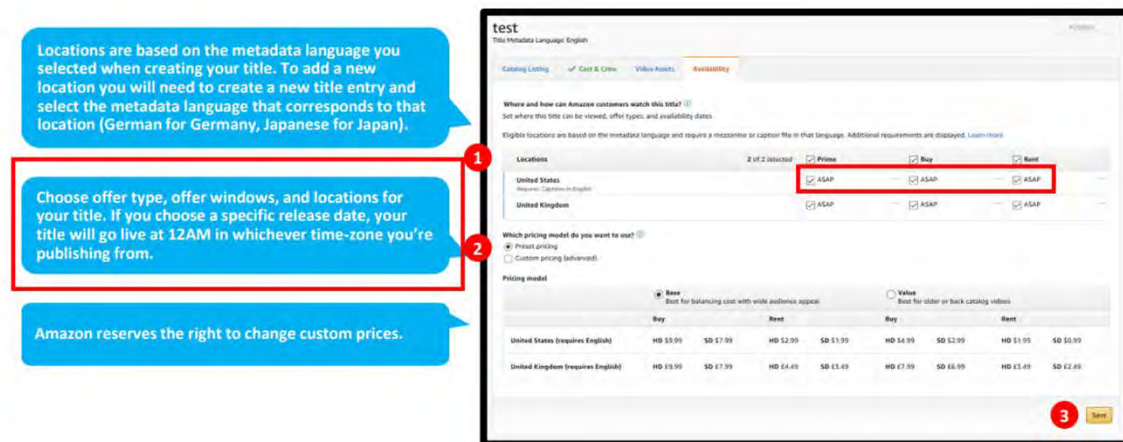
Clancy's Jack Ryan" is itself a further subcategory. These categories and subcategories are designated by the first video content provider in PVD.



135. The category information and subcategory information is used to specify a hierarchical location of the first title of the first video content within the video-on-demand content menu. For example, both the category (Action and adventure) and subcategory (Action and adventure TV) are used to specify a location of the TV Show “Tom Clancy’s Jack Ryan.” When the subcategory “Tom Clancy’s Jack Ryan” is selected, the subscriber may select “Seasons & Episodes” to view title information for video content, such as “Season 2, Episode 6 – Persona Non Grata.”

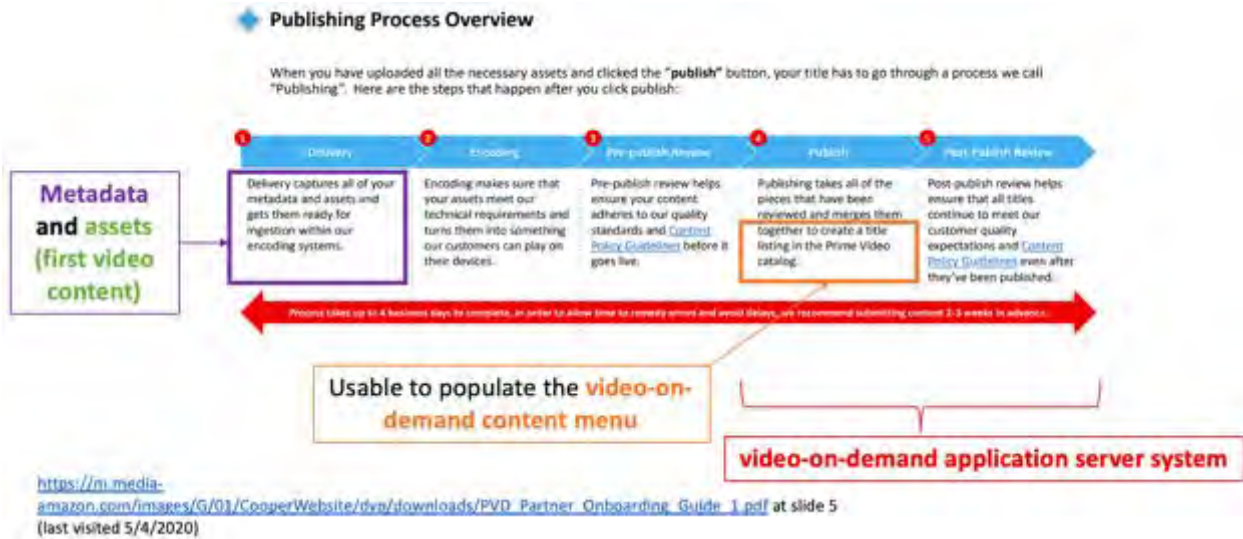


136. The Accused '751 Patent Products further include first time information for availability of the first video content for scheduling of viewing of the first video content through the video-on-demand application. For example, Prime Video Direct allows content providers to schedule a time when content will be available on Prime Video.



[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf) at slide 15 (last visited 5/4/2020)

137. In the Accused '751 Patent Products, the video-on-demand application server system [generates] video-on-demand content menu information data, including at least the first video-on-demand application-readable metadata associated with the first video content and usable to populate the video-on-demand content menu. For example, the video-on-demand application server system “takes all of the pieces” and “merges them together” to generate a title listing (video-on-demand content menu information data), which includes metadata associated with the first video content, which is usable to populate the Prime Video catalog (the video-on-demand content menu).



### Getting Started – 3 “Must Have” Assets and Top Tips

There are 3 major assets you need to have before getting started:

	1 Mezzanine File	2 Captions File	3 Key Art / Graph Assets
<b>Description</b>	A mezzanine file is a compressed master video file used to produce additional compressed video streams and downloads. We automatically prepare your file for use across all platforms and streaming qualities. See <a href="#">Mezzanine Requirements</a> for more information.	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers. See <a href="#">Captions Requirements</a> for more details.	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic/standalone titles and must display your exact title name. See <a href="#">Art Requirements</a> for more information.
<b>Common Errors</b>	<ul style="list-style-type: none"> <li>Watermark/Logo/URL</li> <li>Mismatched video and audio durations</li> <li>Extended silent periods, silent audio channels</li> </ul>	<ul style="list-style-type: none"> <li>Out of sync/incoherent</li> <li>Improper time-code (hours:minutes:seconds,milliseconds)</li> <li>Improper formatting</li> </ul>	<ul style="list-style-type: none"> <li>Padded images/Stretched/narrowed images</li> <li>Title name not displayed</li> <li>Improper Aspect Ratio.</li> </ul>
<b>Top Tips</b>	<ul style="list-style-type: none"> <li>Use <a href="#">Interra Baton software</a> to perform quality control on video files prior to delivery.</li> <li>Choose "constant frame rate" instead of "variable frame rate."</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Download this collection of sample files</a> to help understand required formats.</li> <li>Ensure captions are in sync by playing the video and looking at timecodes at the beginning, middle, and end.</li> </ul>	<ul style="list-style-type: none"> <li>For additional details and examples of key art, see the <a href="#">Graphic Assets Guide</a>.</li> <li>Create original images, don't use borders or padding and don't stretch or narrow images to fit the aspect ratio.</li> </ul>

All titles undergo a multi-factor review to help ensure they meet our policies and guidelines. Be sure to check our [Errors and Troubleshooting support page](#).



## Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
Title Name	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	<a href="#">Title Name</a>
Category	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	<a href="#">Category Definitions</a>
Title Metadata Language	This is the language of the Title Name, synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	<a href="#">Location Requirements</a>
Synopsis	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	<a href="#">Synopsis</a>
Genre	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	<a href="#">Genre Definitions</a>
Country of Origin	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	<a href="#">Country of Origin</a>
Rating	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows; however if your title is not officially rated, you must select <b>Suggested Rating - Title not officially rated</b> .	<a href="#">Ratings</a>
Cast and Crew Information	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	<a href="#">Cast and Crew</a>
Mezzanine File	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed.	<a href="#">Mezzanine Requirements</a>
Captions File	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	<a href="#">Caption Requirements</a>
Key Art	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	<a href="#">Art Requirements</a>
Availability Options	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	<a href="#">Royalty Information</a>

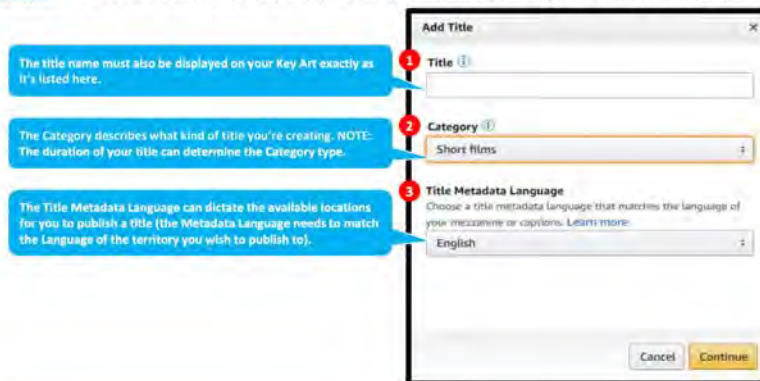
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prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

## Creating a Title Entry – Part 2

When you click "Add Title," the **Category and Title Metadata Language** dictate everything about the title. Please read the [support pages](#) as well as the callouts below, and click the info icons so you fully understand how to correctly create a title listing



The screenshot shows the 'Add Title' form with three callouts:

- 1** Title: The title name must also be displayed on your Key Art exactly as it's listed here.
- 2** Category: The Category describes what kind of title you're creating. NOTE: The duration of your title can determine the Category type.
- 3** Title Metadata Language: The Title Metadata Language can dictate the available locations for you to publish a title (the Metadata Language needs to match the Language of the territory you wish to publish to).

The form fields are: Title (text input), Category (dropdown menu showing 'Short films'), and Title Metadata Language (dropdown menu showing 'English'). There are 'Cancel' and 'Continue' buttons at the bottom.

### Instructions

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1. Enter your **Title Name**. Be sure to avoid using all caps or special characters when entering your title.
2. Choose the **Category** for your title. Note: this often depends on your title's duration.
3. Choose a **Title Metadata Language** that corresponds to the location you want to publish to.

prime video direct

[https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf)

138. The various Amazon services that make up the web-based content management system and the video-on-demand application server system are shown below.



<https://s3.amazonaws.com/solutions-reference/video-on-demand-on-aws/latest/video-on-demand-on-aws.pdf> at page 5  
(last visited 6/10/2020)

139. In the Accused '751 Patent Products, the video-on-demand application server system [sends] to a respective set top box operatively connected to respective television equipment of a respective television service subscriber the generated video-on-demand content menu information data. For example, the Fire TV Cube is a set top box that is connected to the television equipment of a subscriber to Amazon Prime Video. The Prime Video video-on-demand application server system sends the generated video-on-demand content menu information data to the set top box.



<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07KGV6D6> last visited 5/4/2020

**fire tv cube**  
Control your TV hands-free

NETFLIX prime video YouTube Disney+ HBO ESPN CBS Sling

**1** Plug Fire TV Cube to your TV's HDMI port and power.

**2** Connect Fire TV Cube to your Wi-Fi network and power.

**3** Follow the on-screen prompts to set up your subscription(s) and app(s).

All-new Fire TV Cube, hands-free with Alexa built in, 4K Ultra HD, streaming media player, released 2019

by Amazon

★★★★★ (3,489 ratings) | 1000+ answered questions

Amazon's Choice for "Fire tv cube"

Price: **\$119.99 & FREE Shipping** Details

Get a 1-year complimentary subscription to Food Network Kitchen on us. Terms & Condition apply. Learn more

**In Stock.**

Get it as soon as Thursday, May 7 - Friday, May 8 if you choose **Two-Day Shipping** at checkout. Details

Ships from and sold by Amazon.com Services LLC.

Configuration: **Fire TV Cube**

- The fastest, most powerful fire TV.
- From across the room, just ask Alexa to turn on the TV, dim the lights, and play your show.
- Control compatible soundbar and A/V receiver, and change live cable or satellite channels with your voice.
- With the built-in speaker, ask Alexa to check the weather, turn off the lights, and more - even when the TV is off.
- Instant access to 4K ultra HD content, plus support for Dolby Vision and HDR, HDR10+.
- Watch favorites from Netflix, YouTube, Prime Video, Disney+, Apple TV, HBO, and more. Stream for free with Pluto, IMDb TV, and more.
- **With Alexa, control your smart home. From the couch, ask Alexa to turn on the lights, lock the door, or disconnect the microphones.**
- With Prime, watch TV episodes and movies such as "Hanna".
- Use the power and volume buttons on your Alexa voice remote to control your TV without making a sound.

~ See more

<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07KGV6D6>

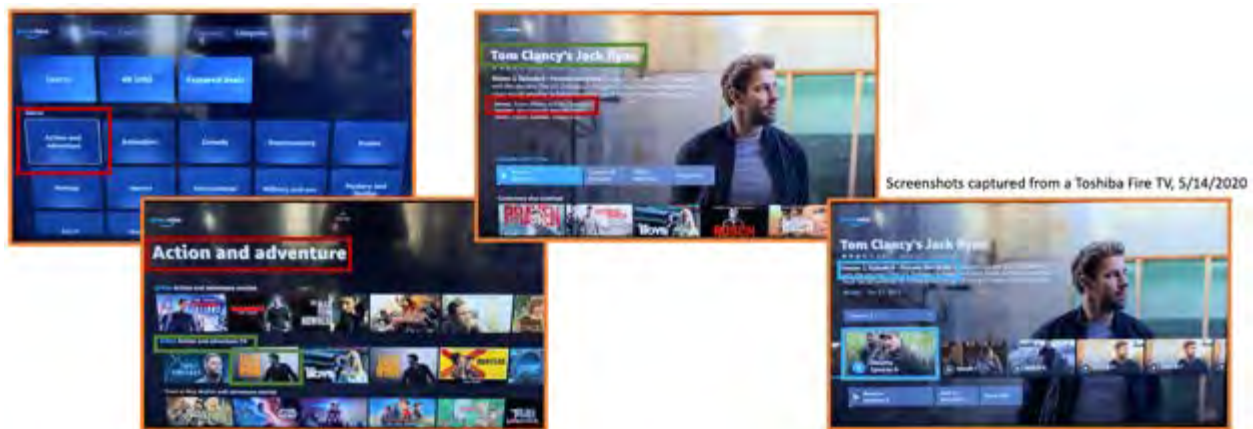
last visited 5/4/2020



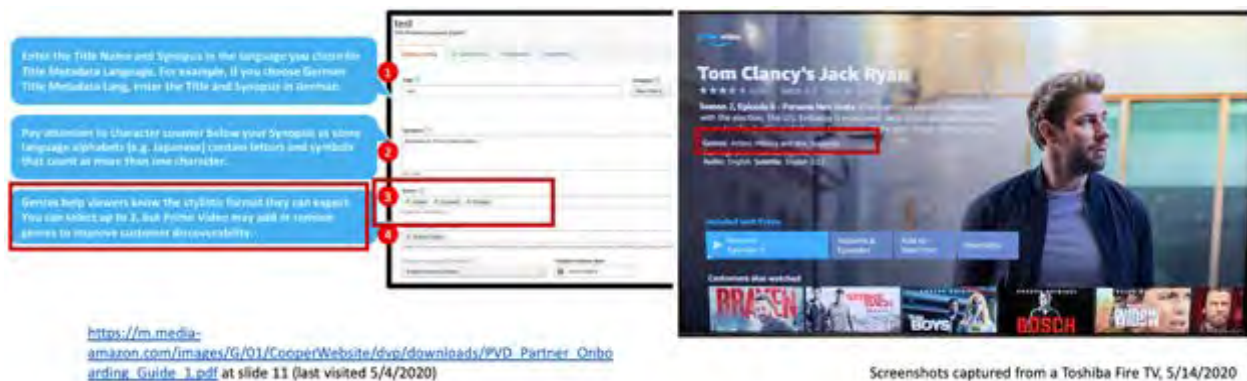


140. In the Accused '751 Patent Products, the respective set-top box generates, using the video-on-demand content menu information data, the video-on-demand content menu for navigating through titles, including the first title of the first video content, by hierarchically-arranged category information and subcategory information, including at least the first category information and the first subcategory information in order to locate a respective one of the titles whose associated video content is desired for viewing on respective television equipment. The set-top box generates the video-on-demand content menu using the video-on-demand content menu information data. As shown above, the categories and subcategories “Action and adventure,” “Action and adventure TV,” and “Tom Clancy’s Jack Ryan” are hierarchically arranged, allowing a subscriber to locate a title, such as “Season 2, Episode 6 – Persona Non Grata.”





141. The video-on-demand content menu of Prime Video lists the titles using the category and subcategory information that was designated by the content provider. For example, Tom Clancy's Jack Ryan is part of the Action, Military and War, and Suspense genres, which were designated by the content provider in the metadata for the respective video content as part of the Prime Video Direct process.

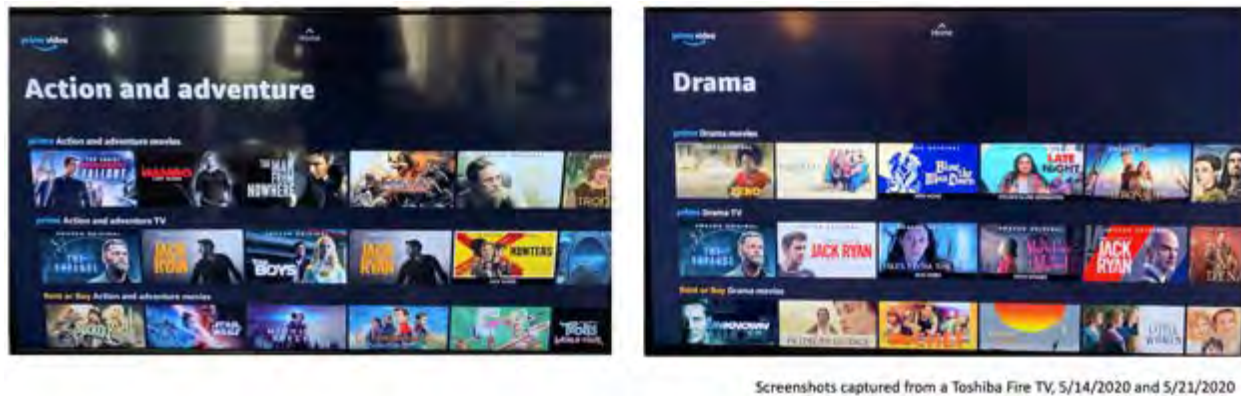


142. In the Accused '751 Patent Products, the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information

as was designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content. The video-on-demand content menu lists titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers. This information was designated in the uploaded first video-on-demand application-readable metadata for the respective video content.



143. In the Accused '751 Patent Products, the video-on-demand content menu lists the titles using the same hierarchical structure of category information and subcategory information as was designated by one or more video content providers, including the first video content provider, in the uploaded first video-on-demand application-readable metadata for the respective video content, wherein a plurality of different display templates, including a first display template, are accessible. A plurality of different display templates are accessible. For example, a template showing a list of titles available in several subcategories of the "Action and adventure" category are shown on the left. This is a template because a list of titles available in several subcategories of the "Drama" category are shown on the right, in the same format.

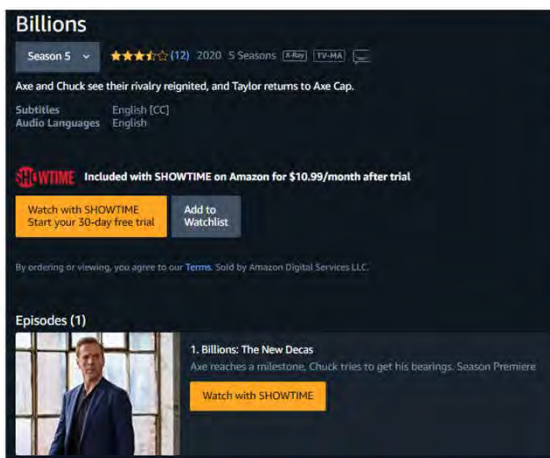


144. A second template of the plurality of different display templates for selecting an episode of Tom Clancy's Jack Ryan is shown below, to the left. This template is shown during the selection of an episode of a TV series. This is a template because a list of episodes in the TV show "The Expanse" are shown on the right, in the same format.



145. In the Accused '751 Patent Products titles "are available for selection from the video-on-demand content menu, at a respective time, [which] is based at least in part on respective time information during which the respective video content associated with the respective time information can be accessed." For example, Prime Video Direct allows content providers to schedule a time when content will be available on Prime Video. If a title is not

available, it will not be displayed on Prime Video. In one example, “Billions” is a show available on Prime Video, but only one episode of Season 5 is available as of 5/4/2020. Further episodes have been scheduled to be released on later dates, such as episode 2 scheduled for release on May 10, 2020.



[https://www.amazon.com/gp/video/detail/B086ZBY1W1/ref=atv\\_dp\\_season\\_select\\_s5](https://www.amazon.com/gp/video/detail/B086ZBY1W1/ref=atv_dp_season_select_s5) last visited 5/4/2020

Season 5 (2020) | edit

No. overall	No. in season	Title	Directed by	Written by	Original air date
49	1	"The New Decas" <sup>(S1)</sup>	Matthew McLoota	Brian Koppelman & David Levien	May 3, 2020
Season 5 begins with Bobby Axelrod reaching a major milestone. Chuck struggles to get his bearings, and he and Wendy navigate a new normal. Tensions are high at Axe Cap. Taylor Mason is back. Axe faces off against new rival Mike Prince. Taylor wrestles with a decision.					
50	2	"The Chris Rock Test" <sup>(S2)</sup>	Lee Tamahori	Adam R. Perlman	May 10, 2020
Axe chases a play at Mike Prince's conference. Chuck wrestles with his demons and chooses a new path. Wendy takes the lead as Axe Cap faces a threat. Taylor confronts their past.					
51	3	"Beg, Bribe, Bully" <sup>(S3)</sup>	TBA	TBA	May 17, 2020
52	4	"Opportunity Zone" <sup>(S4)</sup>	TBA	TBA	May 24, 2020
53	5	"Contract" <sup>(S5)</sup>	TBA	TBA	May 31, 2020
54	6	"The Nordic Model" <sup>(S6)</sup>	TBA	TBA	June 7, 2020
55	7	"The Limitless Shy" <sup>(S7)</sup>	TBA	TBA	June 14, 2020

[https://en.wikipedia.org/wiki/List\\_of\\_Billions\\_episodes](https://en.wikipedia.org/wiki/List_of_Billions_episodes) last visited 5/4/2020

146. In the Accused '751 Patent Products the video-on-demand application server system from the respective set top box, receives an electronic request for the first video content associated with the selected first title for display on the television equipment of the television service subscriber in response to the respective television service subscriber selecting, via a television control unit in communication with the respective set top box, the respective title associated with the video content from the hierarchically-arranged category information and subcategory information of the video-on-demand content menu. The Prime Video server system receives an electronic request for the video content in response to a subscriber selecting the title from the video-on-demand content menu. For example, a user may use the Fire TV remote control to select a title on the Fire TV set top box, which will in turn send a request for the title to the Prime Video server system. Here, a subscriber would select “Watch Now” or “Resume” on



their remote control to play Season 2, Episode 6 – Persona Non Grata of “Tom Clancy’s Jack Ryan.”



147. In the Accused '751 Patent Products the video-on-demand application server system, [causes] to be transmitted to the respective set top box from a video server, the selected first video content for display on the respective TV equipment. For example, Amazon Prime Video will transmit the first video content for display on the TV equipment. Here, Season 2, Episode 6 of “Tom Clancy’s Jack Ryan” is shown playing on a subscriber’s TV.



Screenshots captured from a Toshiba Fire TV, 5/14/2020

148. Amazon has infringed, and continues to infringe, infringed literally and/or under the doctrine of equivalents at least claim 1 of the '751 Patent in the United States, by making, using, offering for sale, selling and/or importing the Accused '751 Patent Products in violation of 35 U.S.C. § 271(a).

149. Amazon also has infringed, and continues to infringe, at least claim 1 of the '751 Patent by actively inducing others to use, offer for sale, and sell the Accused '751 Patent Products. Amazon's users, customers, agents, and/or other third parties who use those products and/or Amazon's VOD service in accordance with Amazon's instructions infringe at least claim 1 of the '751 Patent, in violation of 35 U.S.C. § 271(a). Because Amazon intentionally instructs its customers to infringe through training videos, demonstrations, online instructions and user guides, such as those located at: <https://videocentral.amazon.com/home/help>; [https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.p](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.p)

df; <https://www.amazon.com/gp/help/customer/display.html/>; <https://www.primevideo.com/help>; <https://videodirect.amazon.com/home/landing>; and related domains and subdomains, Amazon is liable for infringement of the '751 Patent under 35 U.S.C. § 271(b).

150. Amazon also has infringed, and continues to infringe, at least claim 1 of the '751 Patent by offering to commercially distribute, commercially distributing or importing the Accused '751 Patent Products, which are used in practicing the processes or using the systems of the '751 Patent, and constitute a material part of the invention. For example, Amazon provides apps to users, who then install those apps on their ICDDs such as smartphones, media player/set-top boxes and tablets. An ICDD that has been configured to use Amazon's apps to access Amazon's VOD platform infringed at least claim 1 of the '751 Patent, in violation of 35 U.S.C. § 271(a). Amazon knows portions of the Accused '751 Patent Products to be especially made or especially adapted for use in infringement of the '751 Patent, and not to be staple articles, and not to be commodities of commerce suitable for substantial noninfringing use. Amazon is thereby liable for contributory infringement of the '751 Patent under U.S.C. § 271(c).

151. Amazon is on notice of its infringement of the '751 Patent by no later than the filing and service of this Complaint. Amazon also received notice of its infringement of the '751 Patent on October 5, 2020, when BBiTV served Amazon with an infringement notice letter. By the time of trial, Amazon will have known and intended (since receiving such notice) that its continued actions would actively induce the infringement of at least claim 1 of the '751 Patent.

152. Upon information and belief, Amazon may have infringed and continues to infringe the '751 Patent through other software and devices utilizing the same or reasonably similar functionality, including other versions of the Accused '751 Patent Products.

153. Amazon's acts of direct and indirect infringement have caused and continue to

cause damage to BBiTV. BBiTV is, therefore, entitled to recover damages sustained as a result of Amazon's wrongful acts in an amount that is proven at trial.

**COUNT V – INFRINGEMENT OF U.S. PATENT NO. 9,973,825**

154. The allegations of paragraphs 1-153 of this Complaint are incorporated by reference as though fully set forth herein.

155. The '825 Patent, titled "Dynamic Adjustment of Electronic Program Guide Displays Based on Viewer Preference for Minimizing Navigation in VOD Program Selection" issued on May 15, 2018. A correct copy of the '825 Patent is attached as **Exhibit E**.

156. Pursuant to 35 U.S.C. § 282, the '825 Patent is presumed valid.

157. Upon information and belief, Amazon makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that provide Amazon's subscribers with video-on-demand services using ICDDs (collectively the "Accused '825 Patent Products").

158. Upon information and belief, the Accused '825 Patent Products infringe literally and/or under the doctrine of equivalents at least claim 1 of the '825 Patent in the exemplary manner described below.

159. Exemplary claim 1 of the '825 patent claims:

1. A method for dynamic adjustment of an individualized electronic program guide where the adjustment is based at least in part on individual viewer consumption of video-on- 30 demand programs on a subscriber TV system to enable navigating by an individual viewer in a TV subscriber household that may have a plurality of viewers to video-on-demand programs offered on a video-on-demand platform of a digital TV services provider which is at least part of a digital TV services provider system, the method comprising:

(a) maintaining, at the digital TV services provider system, an electronic program guide database comprising electronic program guide data, and a usage history database comprising a log of selection data corresponding to the viewer's consumption of the video-on-demand programs using the video-on-demand platform;



(b) establishing, at the digital TV services provider system, viewer-individualized electronic program guide data for each of a plurality of individual viewers to enable the generation of viewer-individualized electronic program guides for each of said plurality of individual viewers at the subscriber TV system for use in accessing the video-on-demand programs, and allowing each respective individual viewer to access a display of their respective viewer-individualized electronic program guide through a Log-In step by which the respective individual viewer operating the subscriber TV system can be associated with their respective viewer-individualized electronic program guide;

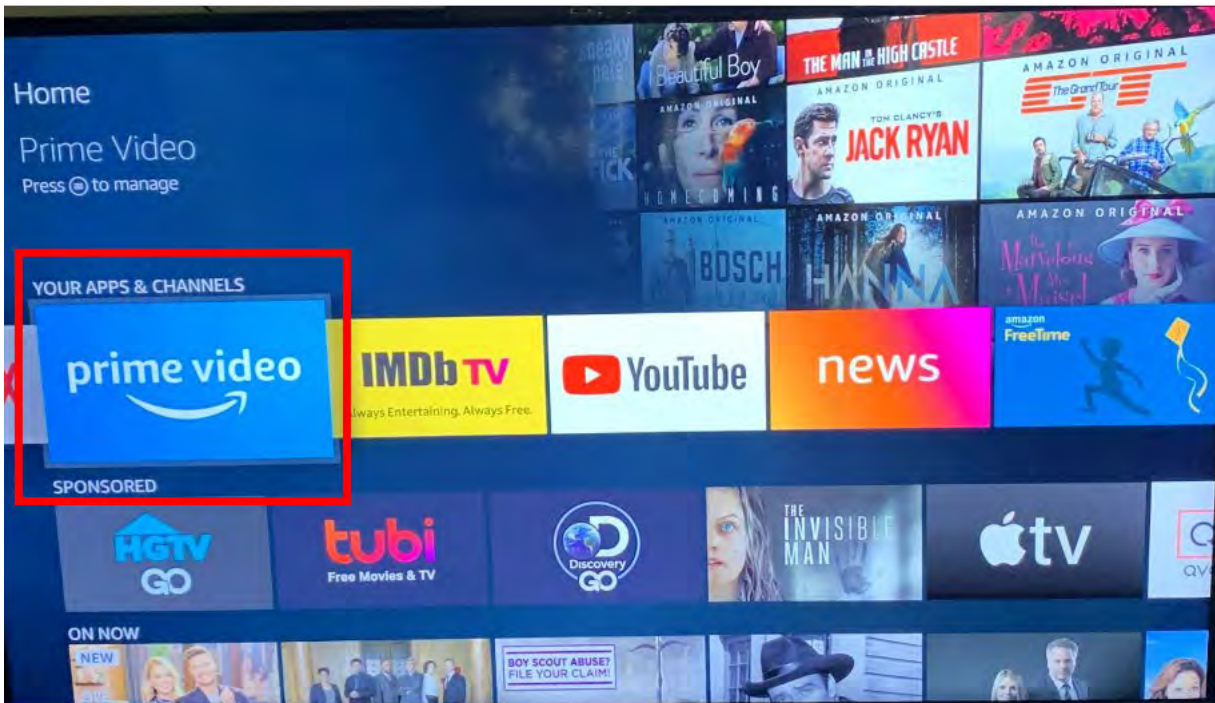
(c) in one or more previous sessions while said respective individual viewer is logged onto their respective viewer-individualized electronic program guide in order to access the video-on-demand programs on the subscriber TV system, tracking, at the digital TV services provider system, said respective individual viewer's consumption of the video-on-demand programs listed in their respective viewer-individualized electronic program guide and saving the selection data in the usage history database;

(d) determining, at the digital TV services provider system, an order of relevance of a plurality of category names for said respective individual viewer selection of video-on-demand programs from their respective viewer-individualized electronic program guide based at least in part on said respective individual viewer's selection data from said one or more previous sessions as stored in the usage history database and reflecting said respective individual viewer's preferences for selection of video-on-demand programs from their respective viewer-individualized electronic program guide, and based at least in part on the electronic program guide data in the electronic program guide database; and

(e) at the start of each new session when said respective individual viewer logs onto their respective viewer individualized electronic program guide in order to access video-on-demand programs on the subscriber TV system, reordering a current display listing of the category names for categories of video-on-demand programs on said respective individual viewer's viewer-individualized electronic program guide based at least in part on said determined order of relevance.

160. Amazon practices “[a] method for dynamic adjustment of an individualized electronic program guide where the adjustment is based at least in part on individual viewer consumption of video-on-demand programs on a subscriber TV system to enable navigating by an individual viewer in a TV subscriber household that may have a plurality of viewers to video-on-demand programs offered on a video-on-demand platform of a digital TV services provider which is at least part of a digital TV services provider system.” For example, Amazon provides

a Prime Video system for delivering video-on-demand (VOD) content to users. Users use a Prime Video App on compatible devices to log in and watch VOD content.



## Supported Devices

- Amazon Devices with the Prime Video App
- Blu-Ray Players with the Prime Video App
- Games Consoles with the Prime Video App
- Mobile Devices with the Prime Video App
- Prime Video System Requirements for Computers
- Set Top Boxes and Media Players with the Prime Video App
- Smart TVs with the Prime Video App

[https://www.primevideo.com/help/144-3483629-3940504?\\_encoding=UTF8&nodeId=GXMWDGNC PX2JLPFH](https://www.primevideo.com/help/144-3483629-3940504?_encoding=UTF8&nodeId=GXMWDGNC PX2JLPFH)

For example, the first link shows a list of Amazon-produced devices with contain the Prime Video App.

### Amazon Devices with the Prime Video App

The following Amazon devices have access to Prime Video.

**Note:** Not all Prime Video titles support all features.

#### Fire TV/Fire TV Stick

- Streaming Video Quality - up to Ultra HD
- Sound quality - up to 5.1 surround sound, Dolby Atmos
- Closed Captions (Subtitles) - Yes
- Audio Description - Yes
- Live Streaming - Yes (on software version 5.2.6.0 or later)
- Live ad support - Yes
- Ad supported channels - Yes

#### Echo devices with a screen (such as Echo Show, Echo Spot)

- Streaming Video Quality - Standard Definition
- Sound quality - stereo
- Closed Captions (Subtitles) - Yes
- Audio Description - Yes
- Live Streaming - Yes (on software version 594447320, and up)
- Live ad support - Yes
- Ad supported channels - Yes for sporting events, No for Prime Video Channels

#### Fire Tablet

- Streaming Video Quality - up to HD
- Sound quality - up to 5.1 surround sound, where supported
- Closed Captions (Subtitles) - Yes
- Audio Description - Yes (except for Kindle Fire, 1st generation)
- Live Streaming - Yes, on generation 7 models and newer
- Live ad support - Yes
- Ad supported channels - Yes, on generation 7 models and newer

[https://www.primevideo.com/help/ref=atv\\_hp\\_nd\\_cnt?nodeId=GJNRWRVL52FFHJ82](https://www.primevideo.com/help/ref=atv_hp_nd_cnt?nodeId=GJNRWRVL52FFHJ82)

161. These devices are also advertised on Amazon.com as having Prime Video capability.





**fire tv stick 4K**

Brilliant picture. Powerful performance.

prime video

HBO

NETFLIX

sling

hulu

ESPN

YouTube

Disney+

Roll over image to zoom in

Fire TV Stick 4K streaming device with Alexa built in, Dolby Vision, includes Alexa Voice Remote, latest release

Brand: Amazon

★★★★★ 284,426 ratings | 1000+ answered questions

Amazon's Choice for "fire tv stick"

Price: **\$49.99** ✓prime

Get a 1-year complimentary subscription to Food Network Kitchen on us. Terms & Condition apply. Learn more

Get \$15 off your eligible purchase of \$50 or more when you use your Chase Ultimate Rewards points. Limited-time offer. Terms and conditions apply.

Configuration: **Fire TV Stick 4K**

Fire TV Stick 4K Fire TV Stick 4K + Accessory Essentials

Fire TV Stick 4K + Echo Dot

Fire TV Stick 4K + Food Network Kitchen

- The most powerful 4K streaming media stick.
- Watch favorites from Netflix, YouTube, Prime Video, Disney+, Apple TV, HBO, and more. Stream for free with Pluto, IMDb TV, and more.
- Launch and control content with the Alexa Voice Remote.
- Enjoy brilliant picture with access to 4K Ultra HD, Dolby Vision, HDR, and HDR10+.
- Choose from 500,000 movies and TV episodes.
- More storage for apps and games than any other streaming media stick.
- Experience tens of thousands of channels, apps, and Alexa skills.

<https://www.amazon.com/Fire-TV-Stick-4K-with-Alexa-Voice-Remote/dp/B079QHML21/>





All-new  
**fire HD8**

32/64 GB storage | 12-hour battery | 2 GB RAM

prime video

NETFLIX

Disney+

amazon music

Spotify

zoom

kindle

audible

Roll over image to zoom in

All-new Fire HD 8 tablet, 8" HD display, 32 GB, designed for portable entertainment, Black

Brand: Amazon

★★★★★ 18,572 ratings  
| 1000+ answered questions

**Amazon's Choice** for "fire hd 8"

Price: **\$89.99** ✓prime

Get \$15 off your eligible purchase of \$50 or more when you use your Chase Ultimate Rewards points. Limited-time offer. Terms and conditions apply.

Style: **Fire HD 8**

**Fire HD 8** Fire HD 8 Plus

Fire HD 8 Plus + Wireless Charging Dock

Digital Storage Capacity: **32 GB**


**32 GB** 64 GB

Offer Type: **With Special Offers**

**With Special Offers** Without Special Offers

Color: **Black**

[https://www.amazon.com/dp/B07TMJ1R3X?ref=MarsFS\\_TAB\\_FHD8](https://www.amazon.com/dp/B07TMJ1R3X?ref=MarsFS_TAB_FHD8)



**fire tv cube**

Control your TV hands-free

NETFLIX

prime video

YouTube

Disney+

HBO

ESPN

CBS ALL ACCESS

sling

Roll over image to zoom in

Fire TV Cube, hands-free with Alexa built in, 4K Ultra HD, streaming media player, released 2019

Brand: Amazon

★★★★★ 16,962 ratings | 1000+ answered questions

**Amazon's Choice** for "fire tv cube"

Price: **\$119.99** ✓prime

Get \$15 off your eligible purchase of \$50 or more when you use your Chase Ultimate Rewards points. Limited-time offer. Terms and conditions apply.

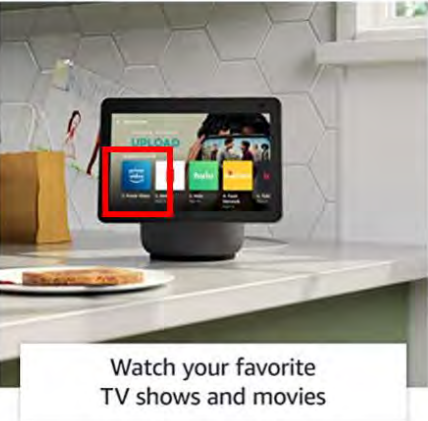
Available at a lower price from other sellers, potentially without free Prime shipping.

Configuration: **Fire TV Cube**

Fire TV Cube	Fire TV Cube + Food Network Kitchen
<b>\$119.99</b> ✓prime	<b>\$119.99</b> ✓prime

- The fastest, most powerful Fire TV.
- From across the room, just ask Alexa to turn on the TV, dim the lights, and play your show.
- Control compatible soundbar and A/V receiver, and change live cable or satellite channels with your voice.
- With the built-in speaker, ask Alexa to check the weather, turn off the lights, and more – even when the TV is off.
- Instant access to 4K ultra HD content, plus support for Dolby Vision and HDR, HDR10+.
- Watch favorites from Netflix, YouTube, Prime Video, Disney+, Apple TV, HBO, and more. Stream for free with Pluto, IMDb TV, and more.
- Designed to protect your privacy - Built with privacy protections and controls, including a microphone off button that electronically disconnects the microphones.

<https://www.amazon.com/all-new-fire-tv-cube-with-alexa-voice-remote/dp/B07KGVBD6/>



Watch your favorite TV shows and movies

Roll over image to zoom in

### All-new Echo Show 10 (3rd Gen) | HD smart display with motion and Alexa | Glacier White

Brand: Amazon



Climate Pledge Friendly

Price: **\$249.99**

**Coming Soon!**

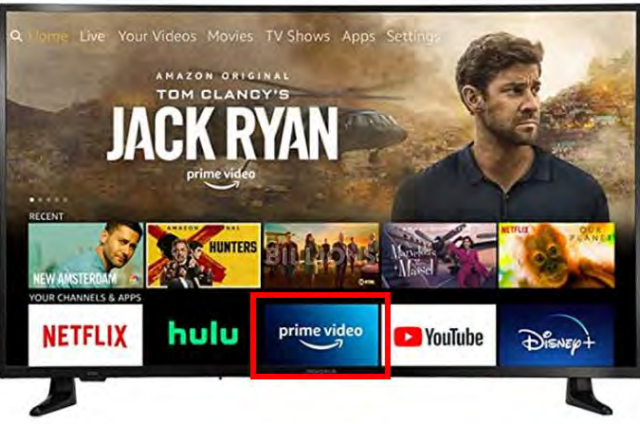
Ships from and sold by Amazon.com Services LLC.

Color: **Glacier White**

 \$249.99  **\$249.99**

- Alexa can show you even more - With a 10.1" HD screen that's designed to move with you, video calls, recipes, and shows are always in view. The speakers deliver premium, directional sound.
- Stay in frame - Video call friends and family or take a picture while the 13 MP camera with auto-framing and motion keeps you front and center.
- Smart home made simple - Set up compatible Zigbee devices or smart products without a separate hub. Ask Alexa to show you security cameras, control lights, and adjust thermostats.
- Take a look around when you're away - Securely access the built-in camera to remotely monitor your home anytime with the Alexa app or other Echo Show devices.
- So much entertainment - Ask Alexa to play your favorite shows, music, and podcasts from Prime Video, Netflix (coming soon), Amazon Music, Spotify, and more.
- The ultimate kitchen companion - Cook along with recipes on Food Network Kitchen, get unit conversions, set timers, add to your grocery list, and multitask with ease.
- Put your memories on display - Use Amazon Photos to turn your home screen into a digital frame that makes your favorite pics look great in any light with adaptive color.
- Designed to protect your privacy - Electronically disconnect the microphones and camera with one press of a button. Slide the built-in shutter to cover the camera. Disable motion at any time.

<https://www.amazon.com/dp/B082X1HRV5/>



Roll over image to zoom in

### All-New Insignia NS-50DF710NA21 50-inch Smart 4K UHD - Fire TV Edition, Released 2020

Visit the INSIGNIA Store

★★★★★ 1,039 ratings | 200 answered questions





List Price: ~~\$349.99~~

Price: **\$299.99** ✓prime


You Save: \$50.00 (14%)


**Pay \$50.00/month for 6 months** (plus S&H, tax) with 0% interest equal monthly payments when you're approved for an Amazon Store Card.

Size: **50-inch** Size Chart

 43-inch  **50-inch**  55-inch  65 inches

Style: **4K UHD DTS Studio Sound**

 4K UHD DTS Studio Sound

 4K UHD DTS Studio Sound (arranged delivery)

Mounting Type	Table Mount
Brand	INSIGNIA
Resolution	4K
Connections	USB, HDMI
Display Technology	LCD

**About this item**

- Voice remote with Alexa: Use your voice to watch live TV, launch apps, search for titles, play music, switch inputs, control smart home devices, and more.
- Endless Entertainment: Watch over 500,000 streaming movies and TV episodes with access to tens of thousands of channels, apps, and Alexa skills.
- Access your favorite content: Fire TV Edition seamlessly integrates live over-the-air TV and streaming channels on a unified home screen.
- Watch high dynamic range (HDR) content on your TV: With an HDR-compatible 4K TV, you can enjoy HDR movies and TV shows, in addition to all your current content.
- Item arrives in packaging that reveals what's inside and can't be hidden.

➔ See more product details

Compare with similar items

☐ Report incorrect product information.

<https://www.amazon.com/All-New-Insignia-NS-50DF710NA21-50-inch-Smart/dp/B086VRR9K9/>



162. Amazon designs its devices that support Prime Video, such as its Fire tablets, Fire TV, and Echo Show in Austin TX.

## Software Development Engineer - ACS

Job ID: 1271604 | Amazon.com Services LLC

Apply now

### DESCRIPTION

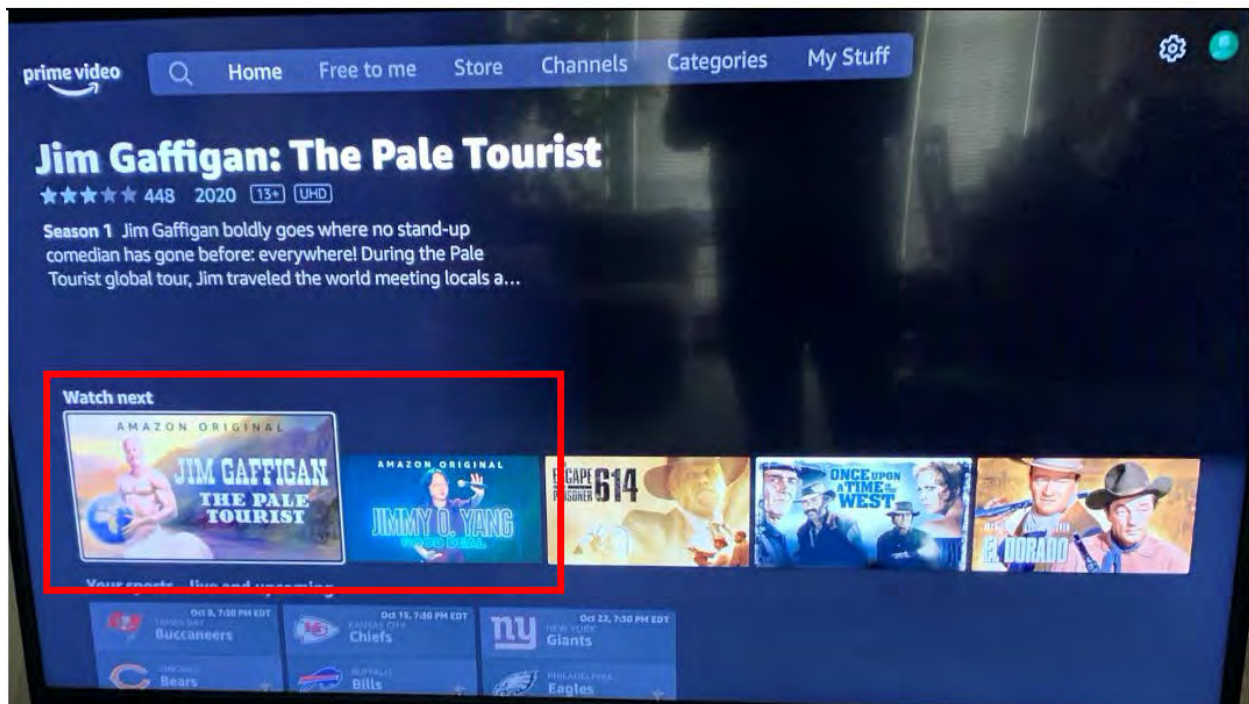
Amazon Lab126 is an inventive research and development company that designs and engineers high-profile consumer electronics. Lab126 began in 2004 as a subsidiary of Amazon.com, Inc., originally creating the best-selling Kindle family of products. Since then, we have produced groundbreaking devices like Fire tablets, Fire TV, Amazon Echo and Echo Show. The Amazon Devices group delivers delightfully unique Amazon experiences, giving customers instant access to everything, digital or physical.

<https://www.amazon.jobs/en/jobs/1271604/software-development-engineer-acs>

### Job details

- Austin, TX
- Device Software
- Software Development

163. Amazon dynamically adjusts the EPG based at least in part on a viewer's consumption of video-on-demand (VOD) programs. For example, a viewer might watch "Jim Gaffigan" and "Jimmy O. Yang" stand-up comedy specials.



164. Based on the viewer's consumption of these VOD programs, a category for "Amazon Originals stand-up comedy" is shown in the user's EPG.



165. Prime Video supports multiple profiles in a TV subscriber household that may have a plurality of viewers. For example, Amazon describes that "Amazon Household customers share Prime Video Profiles across their account." Amazon also describes that each of these profiles will have "separate recommendations, season progress and watchlist based on individual profile activity." This EPG allows users to navigate to video-on-demand programs on Amazon's Prime Video system, which is a video-on-demand platform, which is at least part of a digital TV services provider system.



Digital Services & Content › Prime Video › Profiles ›

## What are Prime Video Profiles?

Prime Video profiles allows you to access separate recommendations, season progress and Watchlist based on individual profile activity.

Prime Video allows you to create and manage multiple profiles within your account with content personalized separately to each profile. Each profile will have separate recommendations, season progress and watchlist based on individual profile activity.

You can have up to six user profiles (1 default primary profile + 5 additional profiles either adult or kids) within Prime Video on a single Amazon account.

You can access Prime Video profiles directly via: <https://www.amazon.com/gp/video/profiles>

[Amazon Household](#) customers share Prime Video Profiles across their account. If you want to opt out of sharing go to [Manage Your Profiles](#).

<https://www.amazon.com/gp/help/customer/display.html?nodeId=GEM24ZP4GX39MKU4>

166. Amazon “maintain[s], at the digital TV services provider system, an electronic program guide database comprising electronic program guide data, and a usage history database comprising a log of selection data corresponding to the viewer’s consumption of the video-on-demand programs using the video-on-demand platform.” For example, Amazon stores EPG data in an EPG database.

“At first, video management relied on Customer Queue Service (CQS). Amazon built CQS on Oracle in 2007 to support the initial launch of the product that would later become Prime Video. Over the years, CQS expanded to cover a wide range of functionality, including playback, ownership, downloads, offers, order fulfillment, library management, season passes, subscriptions, rentals, and content discovery. It is critical to the daily operation of one of the largest video platforms in the world and the repository of billions of dollars in customer rights. If CQS were to go down, Prime Video would be inaccessible.

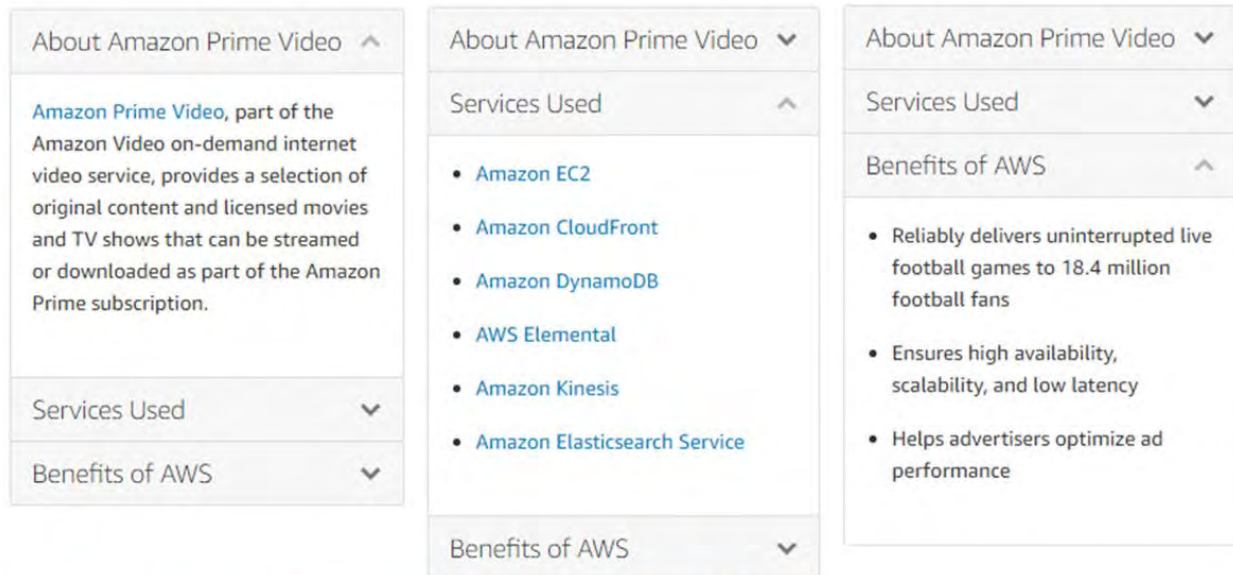
...

As part of its strategy to build a platform that could scale to meet projected needs for at least 10 years, Amazon decided to migrate Prime Video to Amazon Web Services (AWS). The migration would replace CQS with a suite of 12 microservices, built using a range of AWS services that included Amazon DynamoDB, AWS Lambda, and Amazon Simple Queue Service (Amazon SQS).”

<https://aws.amazon.com/solutions/case-studies/amazon-primevideo-dynamodb/>

167. Amazon publishes the services it uses to build Prime Video, which includes the Amazon DynamoDB database.

Amazon Prime Video uses the Amazon Web Service (AWS) Cloud as the underlying technology for all its services. "AWS gives us the flexibility, elasticity, and reliability we require," Winston says. Amazon Video also selected [AWS Elemental](#), an Amazon Web Services company that combines deep video expertise with the power and scale of the cloud to empower media companies to deliver premium video experiences to consumers. "Amazon Video was already using AWS Elemental Cloud for live encoding and packaging for several live linear channels," Winston says. The organization began using AWS Elemental for live encoding, packaging, and ad insertion for Thursday Night Football.



<https://aws.amazon.com/solutions/case-studies/amazon-prime-video/>

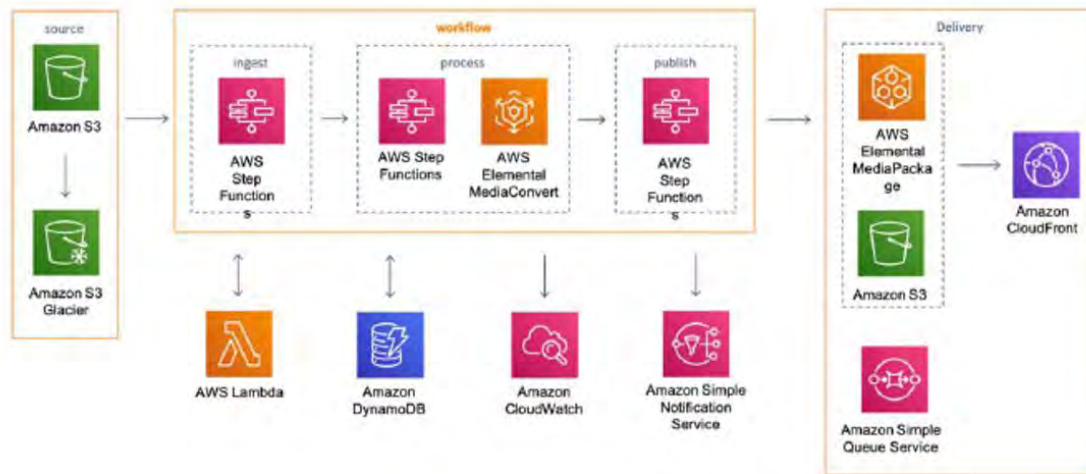
168. These services are also reflected for example, in Amazon's description of how to build a VOD system on AWS, which shows both DynamoDB and S3.

The video-on-demand solution ingests metadata files and source videos, processes the videos for playback on a wide range of devices, stores the transcoded media files, and delivers the videos to end users through CloudFront. This reference implementation provides an example architecture to build a global consumer video workflow on AWS. You can customize the architecture to meet your specific needs. For more information, see [Customization](#).



## Architecture Overview

Deploying this solution builds the following environment in the AWS Cloud.



**Figure 1: Video on Demand architecture**

Tom Nightingale, Daniel Pinheiro. Video on Demand on AWS, AWS Implementation Guide. Pages 4-5. April 2017, Last updated April 2020. Last Accessed 9/11/2020. Available from <https://s3.amazonaws.com/solutions-reference/video-on-demand-on-aws/latest/video-on-demand-on-aws.pdf>

169. Amazon job postings similarly describe the Prime Video system as containing databases such as Dynamo DB and S3.

Prime Video is disrupting traditional media with an ever-increasing selection of movies, TV shows, Emmy Award winning original content, add-on subscriptions including HBO, and live events like Thursday Night Football and Premier League Soccer. Prime Video runs on thousands of device types in over 250 territories worldwide.

The Selection Distribution team designs, implements, and operates large-scale distributed services which helps customers decide when to rent, buy, or stream a title as part of their Prime subscription. This provides the unique challenge of building complex systems for the real-time monitoring of every title on Prime Video and ensures customers have information about available options to play their title.

As a senior member of the team, you will spend your time as a hands-on engineer and a technical leader. You will play a key role in defining the architecture for software using a wide range of technologies, programming languages and systems. You will be given the freedom to explore your own ideas with the reward of seeing your code raise the bar for millions of Amazon customers worldwide, including your own family and friends.

Our architecture supports billions of requests by leveraging Machine Learning and the latest in AWS cloud technologies including Lambda, S3, Step Functions, Dynamo DB and Dynamo DB Accelerator (DAX). Machine Learning aspects of our service can be learned on the job.

<https://www.amazon.jobs/en/jobs/758857/sr-software-development-engineer>

170. Amazon also stores viewers' usage history in a database, because it is able to offer "separate recommendations, season progress and watchlist based on individual profile activity."

Digital Services & Content › Prime Video › Profiles ›

## What are Prime Video Profiles?

Prime Video profiles allows you to access separate recommendations, season progress and Watchlist based on individual profile activity.

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[Amazon Household](#) customers share Prime Video Profiles across their account. If you want to opt out of sharing go to [Manage Your Profiles](#).

<https://www.amazon.com/gp/help/customer/display.html?nodeId=GEM24ZP4GX39MKU4>

171. Amazon "establish[es], at the digital TV services provider system, viewer-individualized electronic program guide data for each of a plurality of individual viewers to enable the generation of viewer-individualized electronic program guides for each of said plurality of individual viewers at the subscriber TV system for use in accessing the video-on-demand programs, and allowing each respective individual viewer to access a display of their respective viewer-individualized electronic program guide through a Log-In step by which the respective individual viewer operating the subscriber TV system can be associated with their respective viewer-individualized electronic program guide." For example, multiple users in a household may have separate logins. In order to facilitate separate logins with separate EPGs, Amazon must establish viewer-individualized electronic program guide data for each of a



plurality of individual viewers to enable the generation of viewer-individualized electronic program guides for each of said plurality of individual viewers at the subscriber TV system for use in accessing the video-on-demand programs.

Digital Services & Content › Prime Video › Profiles ›

## What are Prime Video Profiles?

Prime Video profiles allows you to access separate recommendations, season progress and Watchlist based on individual profile activity.

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Prime Video allows you to create and manage multiple profiles within your account with content personalized separately to each profile. Each profile will have separate recommendations, season progress and watchlist based on individual profile activity.

You can have up to six user profiles (1 default primary profile + 5 additional profiles either adult or kids) within Prime Video on a single Amazon account.

You can access Prime Video profiles directly via: <https://www.amazon.com/gp/video/profiles>

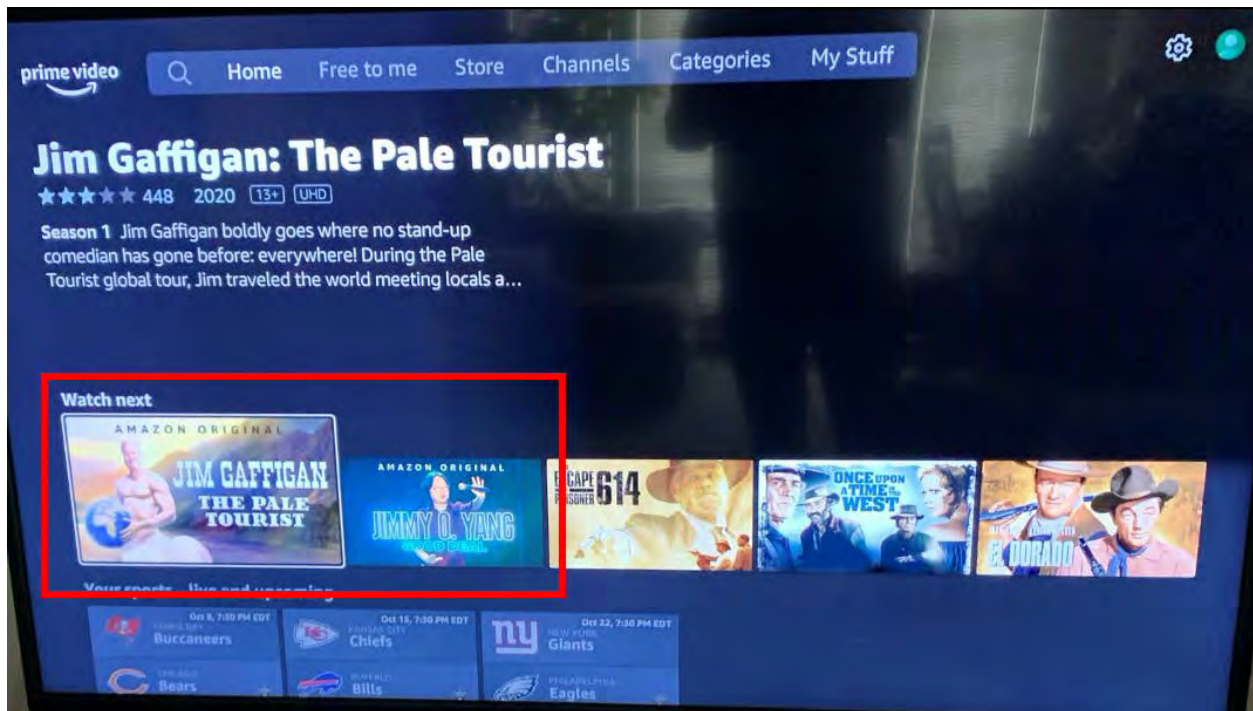
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<https://www.amazon.com/gp/help/customer/display.html?nodeId=GEM24ZP4GX39MKU4>

172. For example, when opening the Prime Video App, it will ask the viewer to log in to a profile.



173. After logging in, the individual viewer can be associated with their respective viewer-individualized electronic program guide. For example, the profile “Ryan” may be associated with an EPG reflecting Ryan’s consumption of “Jim Gaffigan” and “Jimmy O. Yang” stand-up comedy specials.

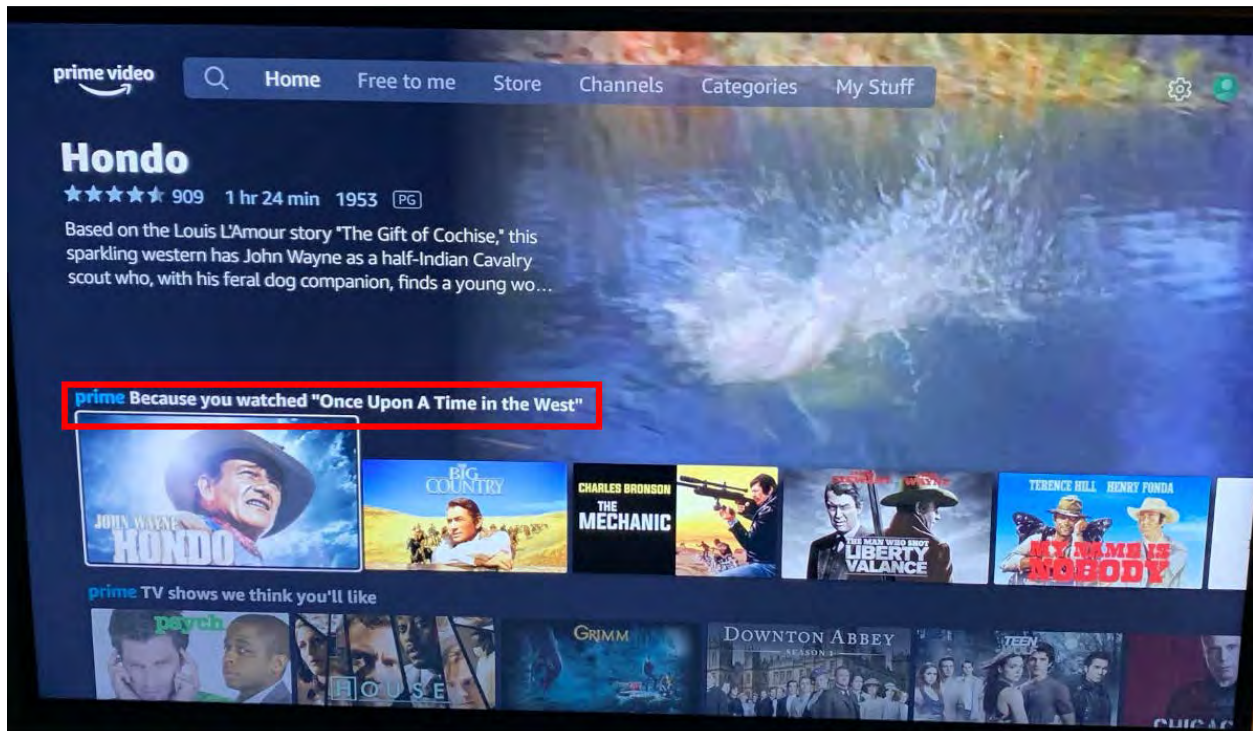


174. For example, based on the viewer's consumption of these VOD programs, a category for "Amazon Originals stand-up comedy" is shown in the user's EPG.



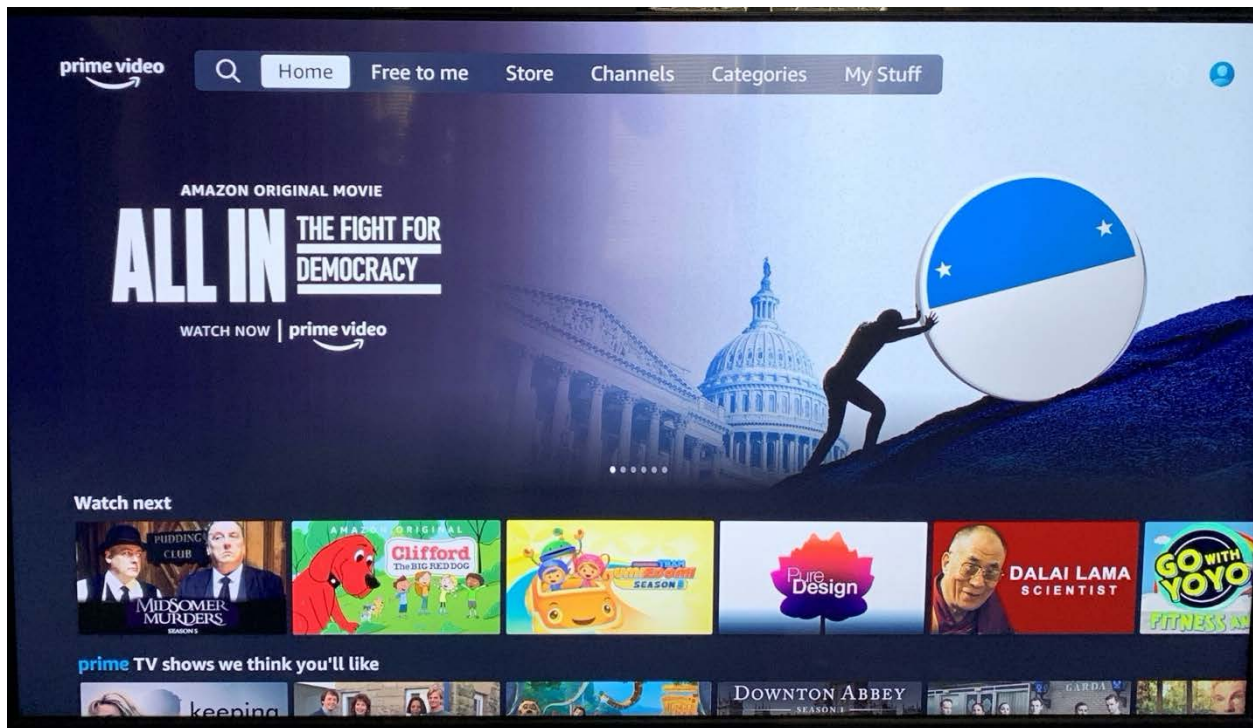


175. Other categories of movies and shows are explicitly mentioned, such as “Because you watched “Once Upon A Time in the West,” listing titles such as “Hondo” and “Liberty Valance.” Below that category is another category of shows recommended based on the viewer’s consumption, “TV shows we think you’ll like,” listing shows like “Psych” and “House.”



176. In contrast, a profile “Tracy D” (shown below) may be associated with an EPG reflecting Tracy’s consumption of different content, such as “Midsomer Murders” and “Clifford the Big Red Dog.”





177. The EPG reflects shows that are recommended for Tracy based on her viewing profile, such as shows like “Keeping Faith” and “Peak Practice.”



178. “[I]n one or more previous sessions while said respective individual viewer is logged onto their respective viewer-individualized electronic program guide in order to access the video-on-demand programs on the subscriber TV system, [Amazon] track[s], at the digital TV services provider system, said respective individual viewer's consumption of the video-on-demand programs listed in their respective viewer-individualized electronic program guide and saving the selection data in the usage history database.” For example, Amazon tracks the content that users watch, and keeps track of such data in its usage history database in order to provide “separate recommendations, season progress and watchlist based on individual profile activity.”

Digital Services & Content › Prime Video › Profiles ›

## What are Prime Video Profiles?

Prime Video profiles allows you to access separate recommendations, season progress and Watchlist based on individual profile activity.

Prime Video allows you to create and manage multiple profiles within your account with content personalized separately to each profile. Each profile will have separate recommendations, season progress and watchlist based on individual profile activity.

You can have up to six user profiles (1 default primary profile + 5 additional profiles either adult or kids) within Prime Video on a single Amazon account.

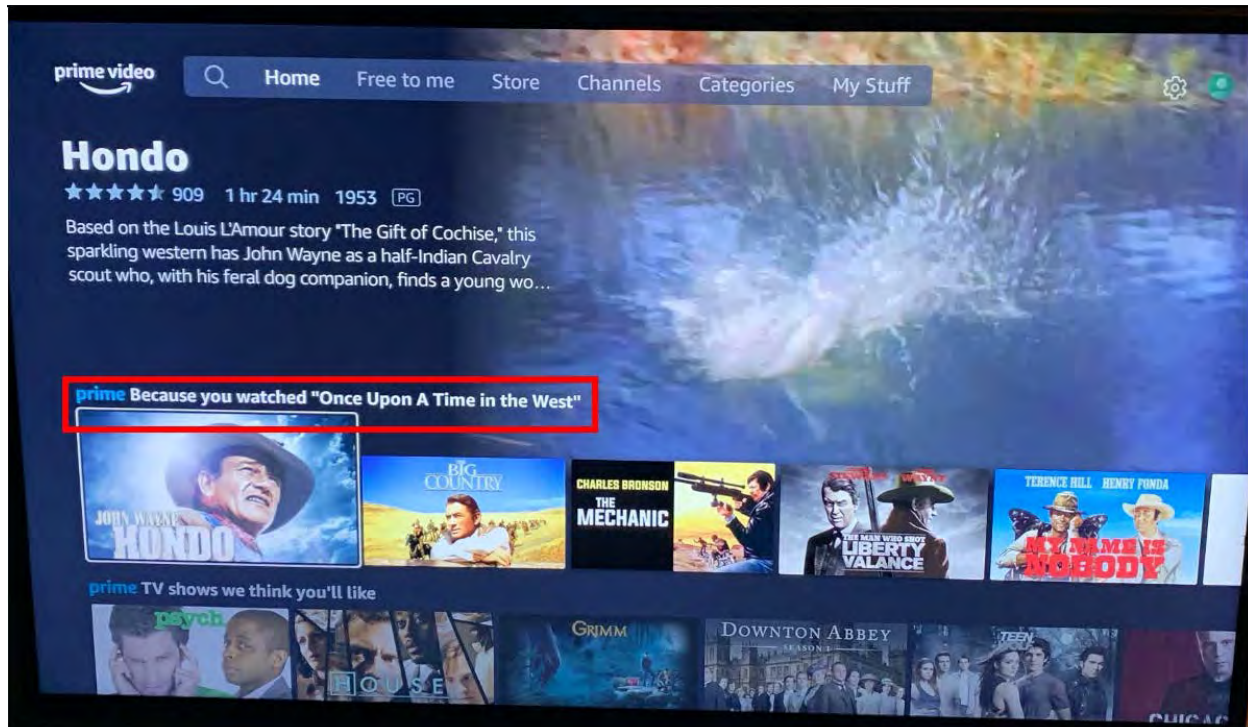
You can access Prime Video profiles directly via: <https://www.amazon.com/gp/video/profiles>

[Amazon Household](#) customers share Prime Video Profiles across their account. If you want to opt out of sharing go to [Manage Your Profiles](#).

<https://www.amazon.com/gp/help/customer/display.html?nodeId=GEM24ZP4GX39MKU4>

179. Additionally, Amazon tracks consumption in order to recommend shows explicitly based on content previously watched, such as the category “Because you watched “Once Upon A Time in the West,” listing titles such as “Hondo” and “Liberty Valance.”

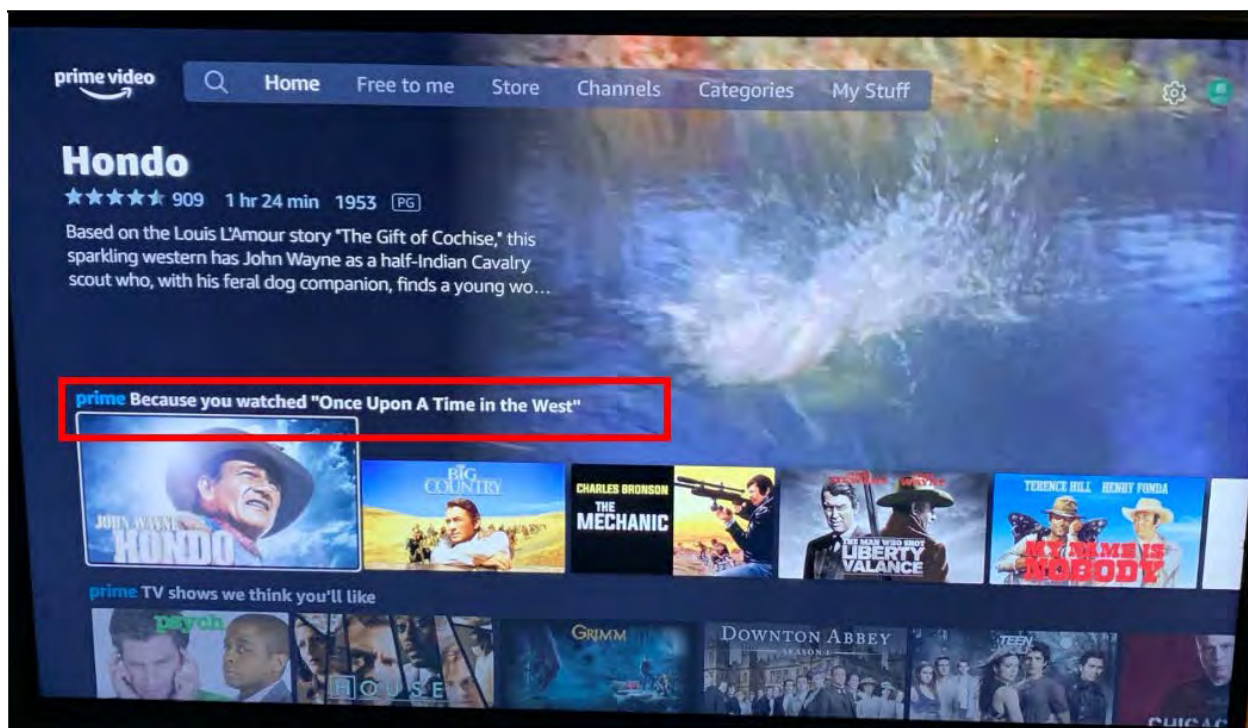




180. Amazon “determin[es], at the digital TV services provider system, an order of relevance of a plurality of category names for said respective individual viewer selection of video-on-demand programs from their respective viewer-individualized electronic program guide based at least in part on said respective individual viewer’s selection data from said one or more previous sessions as stored in the usage history database and reflecting said respective individual viewer’s preferences for selection of video-on-demand programs from their respective viewer-individualized electronic program guide.” For example, Amazon will show different categories to different users based on a viewer’s selection data and might re-order categories that are shown to all users. For example, the categories presented to the “Ryan” and “Tracy” profiles are shown below, in the order presented.

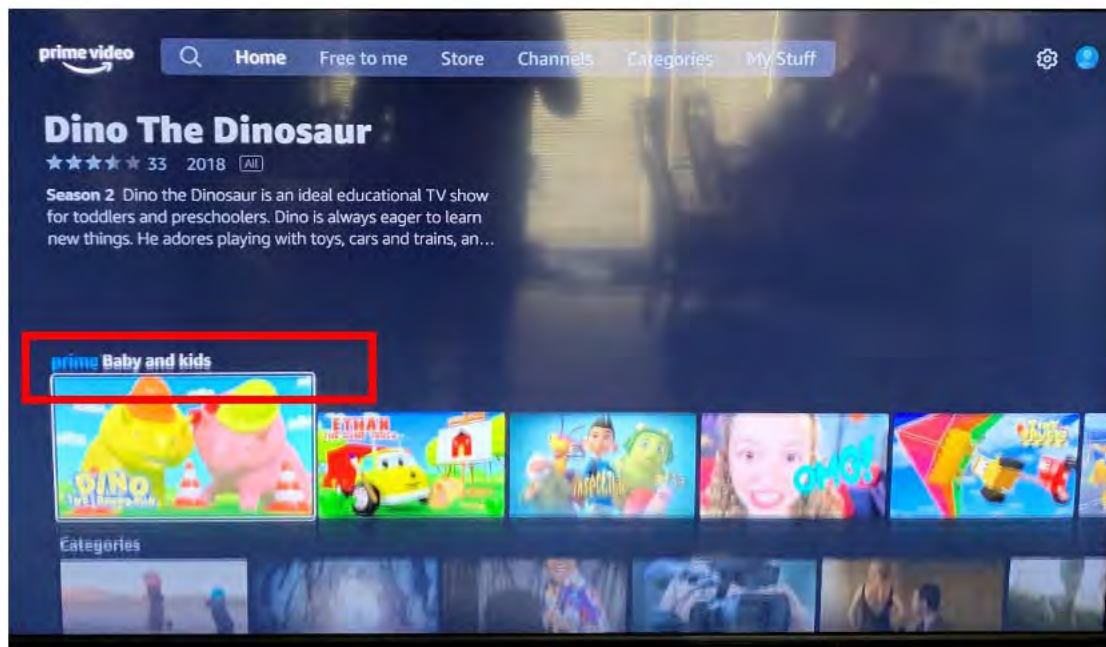
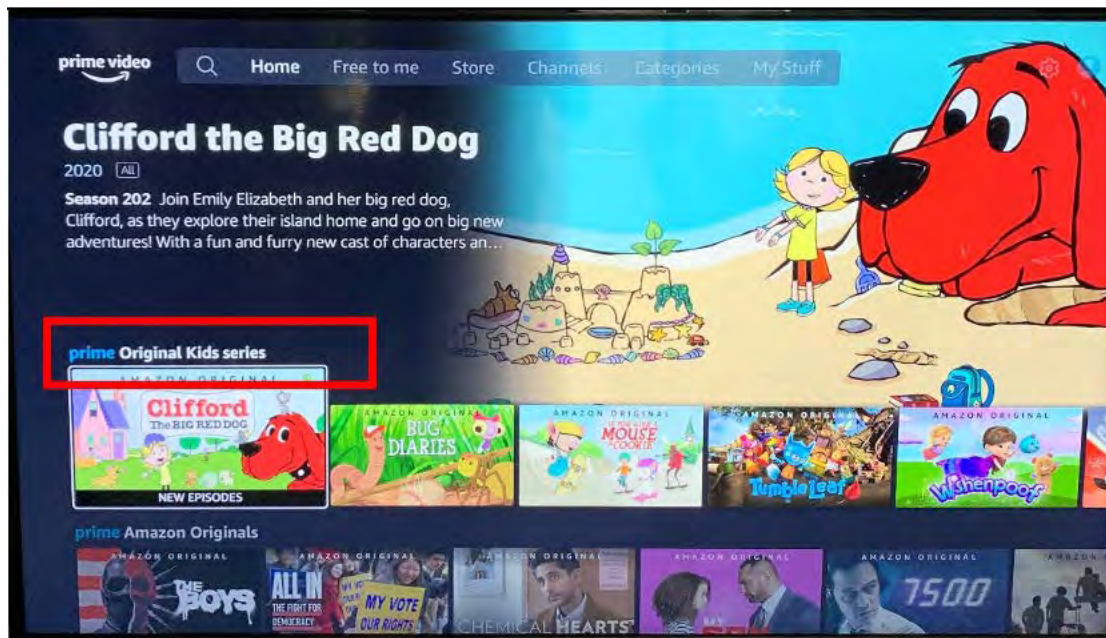
Ryan	Tracy
Watch next	Watch next
Amazon Originals	TV shows we think you'll like
Critically acclaimed Original series	Original Kids series
Prime Video Channels	Amazon Originals
Prime Video Cinema	Prime Video Channels
Movies we think you'll like	Prime Video Cinema
TV shows we think you'll like	TV & movies to sample this month
Categories	Baby and kids
...	...

181. These category lists are “based at least in part on the individual viewer’s selection data from said one or more previous sessions as stored in the usage history database and reflecting said respective individual viewer’s preferences for selection of video-on-demand programs from their respective viewer-individualized electronic program guide.” For example, certain categories are presented to Ryan, such as “Because you watched ‘Once Upon A Time in the West,’” which are explicitly based on Ryan’s selection data and are not presented to Tracy.



182. Similarly, categories such as “Original Kids series” and “Baby and kids” are presented to Tracy, but not Ryan.



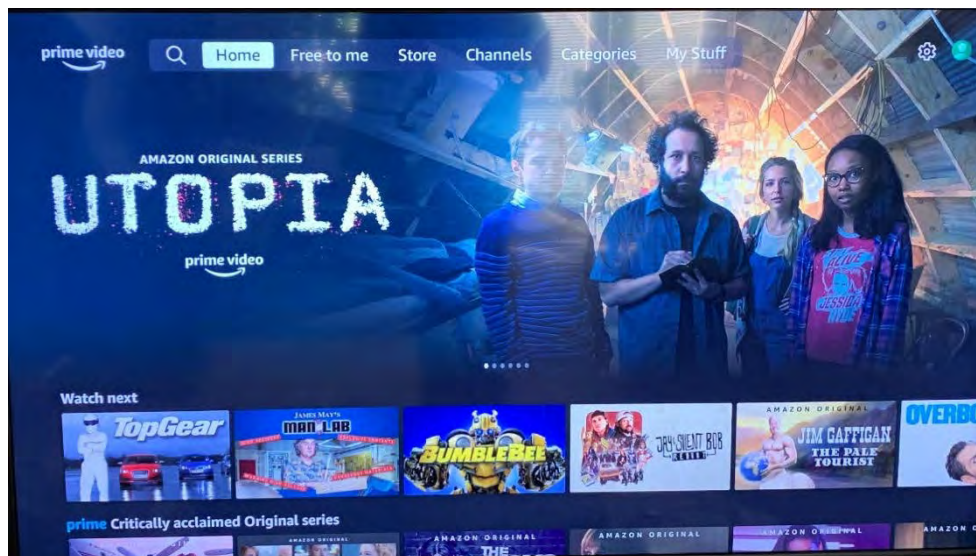


183. “[A]t the start of each new session when said respective individual viewer logs onto their respective viewer-individualized electronic program guide in order to access video-on-demand programs on the subscriber TV system, Amazon reorders a current display listing of the category names for categories of video-on-demand programs on said respective individual

viewer's viewer-individualized electronic program guide based at least in part on said determined order of relevance.” For example, after turning on the TV, a viewer might log in to the “Ryan” profile.



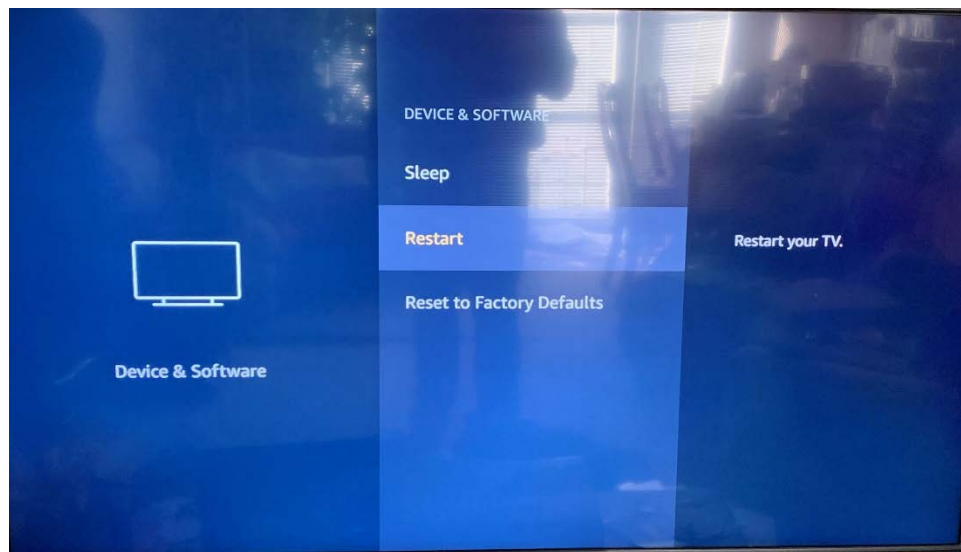
184. The viewer would be presented with an EPG showing categories “Watch next,” with a number of shows and movies the user has selected, and below that, “Critically acclaimed Original series.”



185. If the user scrolls down to a category such as “Movies we think you’ll like,” the user might select a movie to watch such as “Red.”



186. After watching the movie, a user may turn off or restart the TV.



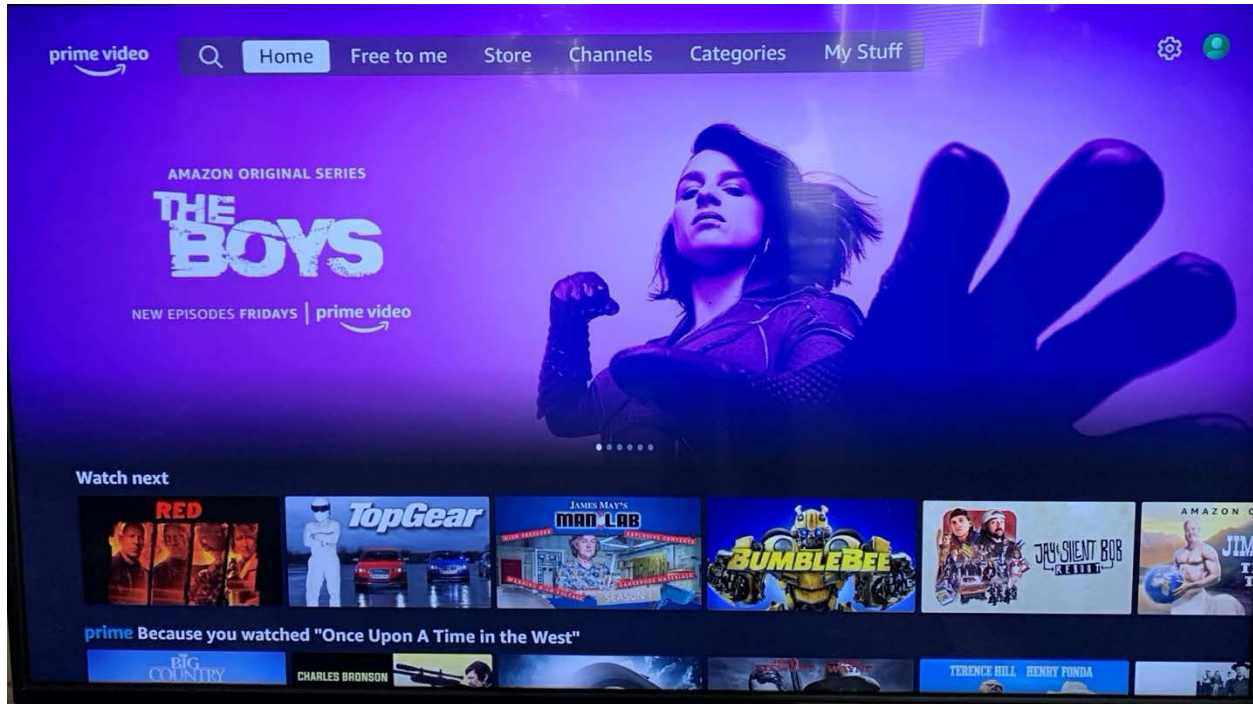
187. Once the TV restarts, after launching the Prime Video App, the user will then need to log in by choosing a profile.





188. After the viewer logs in by selecting the “Ryan” profile, the viewer will then be presented with an EPG that is different than the previous EPG. For example, as shown below, the viewer is presented with categories “Watch next” and below that, “Because you watched ‘Once Upon A Time in the West,’” which is different than the “Critically acclaimed Original series” in the second category slot on the EPG shown prior to the current session. Because this new second category is based at least in part on the viewer’s selection data from said one or more previous sessions, this category is presented at least in part on the determined order of relevance.





189. Amazon has infringed, and continues to infringe, at least claim 1 of the '825 Patent in the United States, by making, using, offering for sale, selling and/or importing the Accused '825 Patent Products in violation of 35 U.S.C. § 271(a).

190. Amazon also has infringed, and continues to infringe, literally and/or under the doctrine of equivalents at least claim 1 of the '825 Patent by actively inducing others to use, offer for sale, and sell the Accused '825 Patent Products. Amazon's users, customers, agents, and/or other third parties who use those products and/or Amazon's VOD service in accordance with Amazon's instructions infringe at least claim 1 of the '825 Patent, in violation of 35 U.S.C. § 271(a). Because Amazon intentionally instructs its customers to infringe through training videos, demonstrations, online instructions and user guides, such as those located at:

<https://videocentral.amazon.com/home/help>; [https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD\\_Partner\\_Onboarding\\_Guide\\_1.pdf](https://m.media-amazon.com/images/G/01/CooperWebsite/dvp/downloads/PVD_Partner_Onboarding_Guide_1.pdf); <https://www.amazon.com/gp/help/customer/display.html/>; <https://www.primevideo.com/help>;

<https://videodirect.amazon.com/home/landing>; and related domains and subdomains, Amazon is liable for infringement of the '825 Patent under 35 U.S.C. § 271(b).

191. Amazon also has infringed, and continues to infringe, at least claim 1 of the '825 Patent by offering to commercially distribute, commercially distributing or importing the Accused '825 Patent Products, which are used in practicing the processes or using the systems of the '825 Patent, and constitute a material part of the invention. For example, Amazon provides apps to users, who then install those apps on their ICDDs such as smartphones, media player/set-top boxes and tablets. An ICDD that has been configured to use Amazon's apps to access Amazon's VOD platform infringes at least claim 1 of the '825 Patent, in violation of 35 U.S.C. § 271(a). Amazon knows portions of the Accused '825 Patent Products to be especially made or especially adapted for use in infringement of the '825 Patent, and not to be staple articles, and not to be commodities of commerce suitable for substantial noninfringing use. Amazon is thereby liable for contributory infringement of the '825 Patent under U.S.C. § 271(c).

192. Amazon is on notice of its infringement of the '825 Patent by no later than the filing and service of this Complaint. Amazon also received notice of its infringement of the '825 Patent on October 5, 2020, when BBiTV served Amazon with an infringement notice letter. By the time of trial, Amazon will have known and intended (since receiving such notice) that its continued actions would actively induce the infringement of at least claim 1 of the '825 Patent.

193. Upon information and belief, Amazon may have infringed and continues to infringe the '825 Patent through other software and devices utilizing the same or reasonably similar functionality, including other versions of the Accused '825 Patent Products.

194. Amazon's acts of direct and indirect infringement have caused and continue to cause damage to BBiTV. BBiTV is, therefore, entitled to recover damages sustained as a result.

of Amazon's wrongful acts in an amount that is proven at trial.

**PRAYER FOR RELIEF**

WHEREFORE, BBiTV respectfully prays that the Court enter judgment in its favor and against Amazon as follows:

a. A judgment that Amazon has infringed one or more claims of the '026 Patent literally and/or under the doctrine of equivalents directly and/or indirectly by inducing infringement and/or by contributory infringement;

b. A judgment that Amazon has infringed one or more claims of the '388 Patent literally and/or under the doctrine of equivalents directly and/or indirectly by inducing infringement and/or by contributory infringement;

c. A judgment that Amazon has infringed one or more claims of the '750 Patent literally and/or under the doctrine of equivalents directly and/or indirectly by inducing infringement and/or by contributory infringement;

d. A judgment that Amazon has infringed one or more claims of the '751 Patent literally and/or under the doctrine of equivalents directly and/or indirectly by inducing infringement and/or by contributory infringement;

e. A judgment that Amazon has infringed one or more claims of the '825 Patent literally and/or under the doctrine of equivalents directly and/or indirectly by inducing infringement and/or by contributory infringement;

f. That for each Asserted Patent this Court judges infringed by Amazon this Court award BBiTV its damages pursuant to 35 U.S.C. § 284 and any royalties determined to be appropriate;

- g. That this Court award BBiTV prejudgment and post-judgment interest on its damages;
- h. That BBiTV be granted its reasonable attorneys' fees in this action;
- i. That this Court award BBiTV its costs; and
- j. That this Court award BBiTV such other and further relief as the Court deems proper.

**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, BBiTV demands a trial by jury for all issues so triable.



Dated: August 18, 2021

Respectfully submitted,

By: /s/ Robert F. Kramer  
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*Attorneys for Plaintiff*  
Broadband iTV, Inc.

**CERTIFICATE OF SERVICE**

I hereby certify that on August 18, 2021, I caused a copy of these documents to be served by transmitting it via e-mail or electronic transmission to counsel of record for all Defendants.

By: /s/ Robert F. Kramer